Purchasing Receipts

PO No	Supplier	Line Item No	Rel	Terms	Purchased Item	Description	For Part No	Project	Equipment ID	Order Qty	Due Date	Received Quantity	Accounting Job No	Container No	Status	Receive Date	Price/Uni
PO039632	ACI001-VC	1	1	Net 30	M1018S.375	M1018S.375 : AISI 1010- 1025 OR ASTM A36/A366/A1008 OR CSA G40-21, 38W/44W/50W/60W/70W NO SCALE ON SHEET MINIMUM YIELD TENSILE STRENGTH= 28KSI MINIMUM ULIMATE TENSILE STRENGTH= 42KSI COLD ROLLED receive sf				16	4/30/2018			S066318	Stock		\$ 13.83 / sf
		4		l	M6061T6R1.000	Round Bar 1.00**: MATERIAL: 6061- T6/T651/T6510/T6511/T62 ALUMINUM ROUND BAR AS PER QQ-A-225/8 OR AMS-QQ-A-225/8 OR AMS 4117 4128/4115/4116 OR QQ- AA-200/8 OR AMS-QQ-A- 200/8 OR AMS 4160 OR ASTM B221 OR ASTM B221 receive ft				40		40	A	5066319	Stock	4/28/2018	\$ 2.74 / ft
		5			M4140H-R1.250	4140 Round Bar 1.250 : AISI 4140H ROUND BAR PER AISI41400R ASTM A304-02/-A-434-BC/- A193-03-GRADE B7/-A29- 03/-A322-91 OR UNS#- G41400 MINIMUM ULTIMATE TENSILE STRENGTH=100 KSI MINIMUM YIELD TENSILE STRENGTH=66KSI receive ft				20		18		\$066320	Stock	4/28/2018	\$ 6.92 / ft
		6		980	M6061T6S0.750X06.500					12		12		\$066321	Stock	4/28/2018	\$ 30.33 / ft
		7		9	M303R1.000	303 Round Bar 1.00: MATERIAL: AISI 303 SS ROUND BAR AS PER ASTM A582 NOTE:304/316 NOT ACCEPTABLE receive ft						12	9	\$066322	Stock	4/28/2018	\$ 8.44 / ft
		g			M303R0.750	303 Round Bar 0.750 : MATERIAL: AISI 303 SS ROUND BAR AS PER ASTM A582 NOTE:304/316 NOT ACCEPTABLE receive ft						12		S066323	Stock	4/28/2018	\$ 4.85 / ft
		10		1	M5052H32S.050	5052-H32 .050 Sheet: MATERIAL: 5052-H32 ALUMINUM SHEET AS PER QQ-A-250/8 OR AMS-QQ-A-250/8 OR AMS 4016 OR ASTM B209 receive sf				40		40		S066324	Stock	4/28/2018	\$ 2.63 / sf
		11		1	M5052H32S.080	5052-H32 .080 Sheet : MATERIAL: 5052-H32 ALUMINUM SHEET AS PER QQ-A-250/8 OR AMS-QQ-A-250/8 OR AMS 4016 OR ASTM B209 receive sf				32		32		S066325	Stock	4/28/2018	\$ 4.18 / sf
		12	2		M2024T3S.063	2024-T3 .063 Sheet: MATERIAL: 2024-T3 ALUMINUM SHEET AS PER QQ-A-250/4 OR AMS-QQ-A-250/4 OR AMS 4037 OR ASTM				144		144		\$066326	Stock	4/28/2018	\$ 9.87 / sf

PO No	Supplier	Line Item No	Rel .	Terms	Purchased Item	Description	For Part No	Project	Equipment ID	Order Qty	Due Date	Received Quantity	Accounting Job No	Container No	Status	Receive Date	Price/Un
		13		7		304 Bar .625 X 3.00 : MATERIAL: AISI 304/316 SS BAR OR AISI 304/316 SS PLATE AS PER ASTM A276 OR ASTM A240 NOTE: AISI 303 NOT ACCEPTABLE receive ft				12		13		\$066327	Stock	4/28/2018	\$ 36.75 / ft
			-						Total:	340		339					

Plex 4/28/2018 7:53 AM Dart Dubois Pascal



Dart Aerospace Ltd. 1270 Aberdeen St Hawkesbury, ON K6A 1K7 Canada

Tel (613) 632-5200

PURCHASE ORDER PO039632

Supplier: A

ACI001-VC Acier Ouellette Inc.

935 Boul. Du Havre Valleyfield

QC

J6S 5L1 Canada Phone: 800 667 4248

Fax: 450 377 5696

PO No:

PO039632

PO Date:

4/18/18 4/20/18

Due Date: Purchase Order

Revision:

Revision Date:

Ship-To Contact:

Lavoie, ChantalPhone:

clavoie@dartaero.com

Ship To:

1270 Aberdeen Street

Hawkesbury

ON

K6A 1K7 Canada Phone: 613-632-5200 Via:

Ground

Pymt Terms:

Net 30

Freight Terms:

Special Comments: quote: SOU0098788

Line Item	Part Sup		Status	Due Date	Order Quantity	Received Quantity		Unit Price (CAD)	Extende Price
1	M6061T6S.625	6061-T6 .625 Sheet : MATERIAL: 6061-T6/T62 ALUMINUM SHEET AS PER QQ-A-250/11 OR AMS-QQ-A-250/11 OR AMS 4025 OR AMS 4027 OR ASTM B209 receive sf		4/20/18	16 sf	16	16 sf	\$34.98/sf APR 2 4 2010	
2	M6061T6S.250	6061T6 Sheet .250 : MATERIAL: 6061-T6/T62 ALUMINUM SHEET AS PER QQ-A-250/11 OR AMS-QQ-A-250/11 OR AMS 4025 OR AMS 4027 OR ASTM B209 receive sf	1	4/20/18	32 sf	0(sf 372)	32 sf	\$12.295625/sf	
3	M1018S.375	M1018S.375 390 : AISI 1010-1025 OR ASTM A36/A366/A1008 OR CSA G40-21, 38W/44W/50W/60W/70W NO SCALE ON SHEET MINIMUM YIELD TENSILE STRENGTH= 28KSI MINIMUM ULIMATE TENSILE STRENGTH= 42KSI COLD ROLLED receive sf	Firmed	4/20/18	16 sf	0 sf	16 sf	\$13.8275/sf APR 2 8 2 DAS 11	018

Line Item	Part	Supplier Part No	Description	Status	Due Date	Order	Received Quantity		Unit Price (CAD)	Extended
4	M6061T6R1.000	raitio	Round Bar 1.00": : MATERIAL: 6061- T6/T651/T6510/T6511/T62 ALUMINUM ROUND BAR AS PER QQ-A-225/8 OR AMS-QQ-A-225/8 OR AMS 4117 4128/4115/4116 OR QQ- AA-200/8 OR AMS-QQ-A- 200/8 OR AMS 4160 OR ASTM B221 OR ASTM B221 receive ft	Firmed	4/20/18			40 ft	\$2.7375/ft APR 2 8 2010	\$109.5
5	M4140H-R1.250		4140 Round Bar 1.250 : AISI 4140H ROUND BAR PER AISI4140OR ASTM A304-02/-A-434- BC/-A193-03-GRADE B7/- A29-03/-A322-91 OR UNS#-G41400 MINIMUM ULTIMATE TENSILE STRENGTH=100 KSI MINIMUM YIELD TENSILE STRENGTH=66KSI receive ft	Firmed	4/20/18	20 ft	18'	20 ft DAS 11 9-89	\$6.921666/ft APR 2 8 20	
ine Item Note	NOTE CUT ROUND BAR	IN HALF	er construction of the con	THE PERSON NAMED IN COLUMN 2 IS NOT THE OWNER, THE PERSON NAMED IN COLUM	Lasmann - or	The same of the same of			after some annual entitle and the little and the	A N. A. STATE - 18 -
6	M6061T6S0.750X06.500		6061T6 Sheet 0.750 X 6.500 : MATERIAL: 6061- T6/T651/T6510/T6511/T62 ALUMINUM BAR PER QQ-A-225/8 OR AMS-QQ- A-225/8 OR AMS 4117/4128/4115/4116 OR QQ-A-200/8 OR AMS-QQ- A-200/8 OR AMS 4160 OR ASTM B211 OR ASTM B221 receive ft	The same section and the same section is a section of the same sec	4/24/18	12 ft	0 ft 12' 6,630		\$30.3275/ft PR 2 8 2019	\$363.95 11 9-89
7	M303R1.000		303 Round Bar 1.00 : MATERIAL: AISI 303 SS ROUND BAR AS PER ASTM A582 NOTE:304/316 NOT ACCEPTABLE receive ft	Firmed	4/20/18	12 ft	12		\$8.4358333/ft APR 2 8 201	DA
8	M303B1.000X1.000		M303B1.000 X 1.000 : MATERIAL: AISI 303 SS BAR AS PER ASTM A582 NOTE: AISI 304/316 NOT ACCEPTABLE receive ft	Firmed	5/2/18	12 ft	O ft	12 ft	\$39.10/ft	\$469.20
9	M303R0.750		303 Round Bar 0.750 : MATERIAL: AISI 303 SS ROUND BAR AS PER ASTM A582 NOTE:304/316 NOT ACCEPTABLE receive ft	Firmed	4/20/18	12 ft	12'		\$4.8508333/ft PR 2 8 2018	\$58.2° DAS 11

Line Item	Part	Supplier Part No	Description	Status	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
10	M5052H32S.050		5052-H32 .050 Sheet : MATERIAL: 5052-H32 ALUMINUM SHEET AS PER QQ-A-250/8 OR AMS-QQ-A-250/8 OR AMS 4016 OR ASTM B209 receive sf	Firmed	4/24/18			/ 40 sf	\$2.6275/sf APR 2 8	C
11	M5052H32S.080		5052-H32 .080 Sheet : MATERIAL: 5052-H32 ALUMINUM SHEET AS PER QQ-A-250/8 OR AMS-QQ-A-250/8 OR AMS 4016 OR ASTM B209 receive sf	Firmed	4/20/18	32 sf	32	32 sf	\$4.175625/sf	
12	M2024T3S.063		2024-T3 .063 Sheet : MATERIAL: 2024-T3 ALUMINUM SHEET AS PER QQ-A-250/4 OR AMS-QQ-A-250/4 OR AMS 4037 OR ASTM B209 receive sf	Firmed	4/25/18	144 sf	06t		\$9.8660416/sf	\$1,420.7 DAS 11 9-89
13	M304B0.625X3.000		304 Bar .625 X 3.00 : MATERIAL: AISI 304/316 SS BAR OR AISI 304/316 SS PLATE AS PER ASTM A276 OR ASTM A240 NOTE: AISI 303 NOT ACCEPTABLE receive ft		4/25/18	12 ft	13		\$36.745833/h	DAS 11 9-89
14	M304S16GA		304/316 Sheet .063 : MATERIAL: AISI 304/316 SS SHEET ANNEALED AS PER MIL-S-5059 OR AMS 5513 (304) OR AMS 5524 (316) OR ASTM A240 OR ASME SA240 receive sf	1	4/20/18	160 sf	0 sf	160 sf	\$6.508625/st	\$1,041.3

Order Notes

Procurement Quality Clauses

A005 right of entry

A012 chemical and physical test report

A016 personnel qualification

A017 raw material identification (as applicable)

A026 certification of material conformance

A041 quality management system

A042 dart notification by supplier

A043 retention of quality documents

A048 counterfeit parts avoidance, detection, mitigation and disposition program

A049 supplier awareness

Terms & Condition of Purchasing(Suppliers) and Procurement Quality Clauses are an integral part of our AS9100 requirements. To learn in detail, please visit www.dartaerospace.com for further explanation.

Plex 4/18/18 7:40 AM dart.lavoie.chantal

ACIER QUELLETTE INC

DELIVERY - CLIENT

Copy C000085953

	ACIER OUELLETTE INC.	Customer N°	CLI0001056
CHIELLE INE	935, Boul. du Havre Salaberry de Valleyfield (Québec) J6S 5L1	Date	2018/04/25
	Tél.: 450-377-4248 Mtl: 514-336-4248 Ext.: 800-667-4248 Fax: 450-377-5696 Mtl: 514-336-4246 Ext.: 866-456-4242	Delivery date	2018/04/26
		Your order No	PO039632
3illed to	Shipped to	Processed by	Denis Quenneville
DART AEROSPACE LTD		Salesman	
1270 , ABERDEEN ST. HAWKESBURY, Ontario, K6A 1K7	, Ontario,	Carrier	OUELLETTE VALLEYFIELD
	Att : CHANTAL LAVOIE Tél.: 613-632-5200	Credit Terme	Net 30 Days
Instruction F-M	Delivery Route 5	Page	1
Product Description	Weight Qty U/M	CMD EXP B/O	Internal Use Only IN I S C OUT
1 ROUND 4140 ANNEALED 1 1/4 (R) R4140-114A 4895 LIGNE 5	83.44 20.00 PI_\$CLB		18 1 APR 2 8 2018 8-89

All sold and delivered materials remain the property of "Acier Ouellette Inc" until payment is made in full, complete and cashed. All lost materials are at the buyer's expense. The warranty offered by "Acier Ouellette Inc." is the same as offered and honored by the manufacturer and his warranty is transferred by "Acier Ouellette Inc." to the client. The buyer hereby accepts to respect the rollowing conditions. Net 30 days from billing date and the buyer accepts to pay administration charges of 2% per month (24% per annum) on all past due amounts over 30 days. Any default in respect with this contract will lead to payment by acceleration and permits to the seller, at his choice to dain for the balance due or the repossession of the goods sold. All claims must be made within five (5) days with this document enclosed. Any merchandise that has been damaged, cut or modified cannot be returned. All goods returned must be with our authorization and are subject to a 25% restocking charge.

Total Weight (Lbs): 83.44

NIR: R-109516-6

Conditions:

Prepared By :

Verified By :

Delivered By:

Time

3

Total (\$CAD)

Customer's Signature

Billed to

1270 , ABERDEEN ST. HAWKESBURY, Ontario, K6A 1K7

, Ontario,

DELIVERY - CLIENT

Customer N°

CLI0001056

CO00084686

DART AEROSPACE LTD Shipped to 935, Boul. du Hâvre Salaberry de Valleyfield (Québec) J6S 5L1 Tél.: 450-377-4248 Mtl: 514-336-4248 Ext.: 800-667-4248 Fax: 450-377-5696 Mtl: 514-336-4246 Ext.: 866-456-4242 Date Salesman Your order N° Delivery date Processed by Denis Quenneville 2018/04/18 2018/04/27 PO039632

Att: CHANTAL LAVOIE Tél.: 613-632-5200

Credit Terme Net 30 Days

Carrier

OUELLETTE VALLEYFIELD

Instruction 7-3 **Delivery Route** Page

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NIR: R-109516-6

DELIVERY - CLIENT

ACIER OUELLETTE INC.
935, Boul. du Hâvre
935, Boul. du Hâvre
Salaberry de Valleyfield (Québec) J6S 5L1
Tél.: 450-377-4248 Mtl: 514-336-4248 Ext.: 800-667-4248
Fax: 450-377-5696 Mtl: 514-336-4246 Ext.: 866-456-4242 Date **Customer Nº**

2018/04/18 CLI0001056

2018/04/27

PO039632

Your order No

Processed by

Delivery date

Billed to

Shipped to

, Ontario,

DART AEROSPACE LTD

1270 , ABERDEEN ST. HAWKESBURY, Ontario, K6A 1K7

Denis Quenneville

Carrier Salesman

OUELLETTE VALLEYFIELD

Credit Terme

Att : CHANTAL LAVOIE Tél.: 613-632-5200

Net 30 Days

Page	

Instruction F-M	Delivery Route	U1	Page	ge		2				
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5 SQUARE SS 1 SS303 NS	40.80	12.00 PI_\$CLB								
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6 ROUND SS 3/4 303 (R)	18.02	12.00 PI_\$CLB								
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NIR: R-109516-6



Billed to

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, Ontario,

DART AEROSPACE LTD

1270 , ABERDEEN ST. HAWKESBURY, Ontario, K6A 1K7

ACIER OUELLETTE INC.

935, Boul. du Hâvre Salaberry de Valleyfield (Québec) J6S 5L1 Tél.: 450-377-4248 Mtl: 514-336-4248 Ext.: 800-667-4248 Fax: 450-377-5696 Mtl: 514-336-4246 Ext.: 866-456-4242

Date Customer N°

2018/04/18 CLI0001056

2018/04/27

Delivery date

Your order No Processed by

Denis Quenneville P0039632

Salesman

Carrier

Net 30 Days

OUELLETTE VALLEYFIELD

Credit Terme

	Att: CHANTAL LAVOIE Tél.: 613-632-5200	E Tél.: 613-632-5	5200			,			(
tion F-M	Delivery Route	ъ		Page	10			ω				
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Instruction F-M	Delivery Route	· ·		- 496	PCS NB		Internal Use Only	nly
Product Description	Weight	Qty	U/M	CMD E	EXP B/O) IN	I S C	OUT
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1 X 4' X 10' AC15463-RY-2018/04/23 LINE 10					7			58-6 " "
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8 ALU SHEET .081 (12G) 5052-H32 (4 X 8)	36.51	32.00	PI2_\$CLB			273	2	
FEAL-081485052 3198					K	2	APR 7	APR 7 8 7019
1 X 4' X 8' AC15459-RY-2018/04/23 LINE 11 (HEAT: 7111704231-1					7			
9 ALU SHEET .064 (14G) 2024-T3 (4 X 12)	129.74	144.00	PI2_\$CLB			(3) 07	7	4
FEAL-0644122024 3166			4	11	<i>X</i>	144.		\$0 80 80
3 X 4' X 12' AC15460 SA-2018/04/23 LINE 12 HEAT: 241481B1				(,		APR	2 8 2018
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								DAS

NIR: R-109516-6

Billed to 12 10 11 SHEET SS 16G SS304-2B (4 X 8) HAWKESBURY, Ontario, K6A 1K7 DART AEROSPACE LTD 1270, ABERDEEN ST. Instruction PALETTE FLAT SS 5/8 X 3 SS304 NS PALETTE FESS-16G483042B HEAT: 56170113 5 X 4' X 8' LINE 14 FSS-583 AC15458-SM-2018/04/23 LINE 13 Product Description 71 3 3419 9221 7573 Shipped to **Delivery Route** Att : CHANTAL LAVOIE Tél.: 613-632-5200 Salaberry de Valleyfield (Québec) J6S 5L1 935, Boul. du Hâvre Tél.: 450-377-4248 Mtl: 514-336-4248 Ext.: 800-667-4248 Fax: 450-377-5696 Mtl: 514-336-4246 Ext.: 866-456-4242 ACIER OUELLETTE INC. Ontario Total Weight (Lbs): 1 134.65 Weight 420.00 76.56 Sty Sty 160.00 12.00 1.00 PI2_\$CLB NO\$ NO PI_\$CLB U/M NIR: R-109516-6 CMD Page Salesman Your order No Delivery date Date **Customer N° Credit Terme** Carrier Processed by 3-8 EXP PCS NB B/0 OI 2018/04/18 CLI0001056 Net 30 Days Z OUELLETTE VALLEYFIELD Denis Quenneville 2018/04/27 PO039632 Internal Use Only APR 2 S C 0 TUO 9-88 11

DELIVERY - CLIENT

CO00084686

a 25% restocking charge "Acier Quellette Inc." is the same as offered and honored by the manufacturer and his warranty is transferred by "Acier Quellette Inc." to the client. The buyer hereby accepts to respect the following conditions: Net 30 days from billing date and the buyer accepts to pay administration charges of 2% per month (24% per annum) on all past due amounts over 30 days. Any default in respect with this contract will lead to payment by acceleration and permits to the seller, at his choice to claim for the balance due or the repossession of the goods sold. All claims must be made within five (5) days with this document enclosed. Any merchandise that has been damaged, cut or modified cannot be returned. All goods returned must be with our authorization and are subject to All sold and delivered materials remain the property of "Acier Ouellette Inc" until payment is made in full, complete and cashed. All lost materials are at the buyer's expense. The warranty offered by

Time Y M D		Date	Customer's Signature			4	
y: Delivered By: Time Y M D						K	
	•	~ _ M _ D		Time	Delivered By :	Verified By :	Prepared By:

26885-hhd

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CERTIFICATE EN 10204 : 2004 TYPE 3.1

DATE :18/10/2017
CERTIFICATE NO :7/6/126/1
PAGE NO : 1

ANALYSIS

Mdd

EREGLI DEM'R VE CELIK FABRIKALARI T.A.Ş. OUTSTANDING CAPITÂL : 3.500.000.000 TL PRODUCTION PLANT : EROBAIR CUSTOMER
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WESTHE MANUFACTURERS HEREBY CERTIFY THAT THE MATERIAL DESCRIBED HEREIN HAS BEEN MADE BY THE BASIC DXYGEN PROCESS AND TESTED IN ACCORDANCE WITH THE RULES OF CEA GAO 21-13 / ASTM AS72-15 300W 350W / GRSC TYPE 2(ERGEMIR 3246) WITH SATISFACTORY RESULTS. PARTIE OF THE SECTION OCTUPANT OF CELLY

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Head Office. Islandsi: Barbards Wat. Ardiq Sol. No. 6. 34748 Alagebir ISTANBUL - TURKEY

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ERECLI DEMIR ve CELIK FABRIKALARI T A Ş. OUISTANDING CAPITAL : 3.593.000.000 TL PRODUCTION PLANT : EROBMIR CUSTOMER ORDER NO

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CERTIFICATE EN 10204 : 2004 TYPE 3.1

DATE : 18/10/20: CERTIFICATE NO : 71612611 PAGE NO : 2

18/10/2017

DIMENSIONS, mm : 9.530 X 2438 X 6036 (0.375 X 96 X 240 STANDARD & GRADE : CSA G40.21-13 / ASTM AS72-15 300W/350W / GF PRODUCT TYPE & DEFINITION :LKX :HOT ROLLED HEAVY PLATE WITH WILL EDGE WIRTH STEEL

178603204709

9.530 X 2438 X 6038 (0.375 X 98 X 240 INCH)

9.530 X 2438 X 6038 (0.375 X 98 X 240 INCH)

CSA G40.21-13 / ASTM A572-15 300W/350W / GR50 TYPE 2(ERDEMIR 3246)

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Head Office End. T-Transverse,

NOTE, TiTop, M.Middle, E MERSIS Number[Istambul] Head Office Istambul] istanbel: Barbaros Mah Arens Sok Wor 6 34746 Alaşehir İSTANBUL TURKEY

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L:Longitudinal, P.S:Piece of Slice, P.P.Piece of Plate ecs.4250-2023; frade Registry Yumber(Istanbil Deparment,

ERDEMIR

90559. Trade Registry Number(Eregii Department):1574727.

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EREGLI DEMIR VE ÇELIK FABRIKALARI T A.Ş OUTSTANDING CAPITAL : 3.500.00C.000 TL PRODUCTION PLANT : ERDENIR

TEST CERTIFICATE EN 10204 : 2004 TYPE 3.1

DATE :18/10/2017 CERTIFICATE NO :71612611 PAGE NO : 3

CUSTOMER :WIRTH STEEL
ORDER NO :78603204709
IMBOSIONS, mm : 9.530 X 2438 X 8096 [0.375 X 96 X 240 INCH]
STANDARD & GRADE :CSA G40.21-13 / ASTM AS72-15 300W/350W / GRS0 TYPE 2{ERDEMIR 3246}
PRODUCT TYPE & DEFINITION :LKX :HOT ROLLED HEAVY PLATE WITH MILL EDGE

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ERDEMIR

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EREGLI DEMIR Vª ÇELIK FABRIKALARI T.Ā.Ş. OUTSTANDING CAPITAL : 3.500.000.000 TL PRODUCTION PLANT : ERDEMIR

DATE :18/10/2017 CERTIFICATE NO :71612611 PAGE NO : 4

CUSTOMER :WIRTH STEEL
ORDER NO :78603204709
DIMENSIONS, mm : 9.530 X 2438 X 6096 (0.375 X 96 X 240 INCH)
STANDARD & GRADE :CSA G40.21-13 / ASTM A572-15 300M/350M / GRSO TYPE 2(ERDEMÍR 3246)
PRODUCT TYPE & DEFINITION :LXX :HOT ROLLED HEAVY PLATE WITH MILL EDGE

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Head Office: Istanbul Barbaros Mah Head Office! T Transverse, L Longiludinal P S Paese of Slice, P.P Piece of Plate Missel 0357-3095-320-6006 trade Registry Number (Islanbul Department). 90659, Trade Registry Number (Ereğl: Department) '574127 Ardre bok No B

34746 Ataşehir ISTANBUL

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ERDEMIR www erdemir.com. ir

NOTE Trop, M.Middle, E.End, T. Trope MERSIS Number(Estanbul Head Office Head Office Halanbul) Barbaros Mai WE THE WANDEAC 0237042285|14,130 0237042284|14,1101 TICKET NO WEIGHT ERECT DEMIR WE CELTK FABRIKATAR! T.A. SOUTSTANDING CAPITAL : 3.500.000.000 TL PRODUCTION PLANT : ERDEMIR ORDER NO :78603204709
DIMEDSIONS, mm : 9.530 X 2438 X 6096 4.0.
STANDARD & GRADE :CSA G40 21-13 / ASTN A572-15
PRODUCT TYPE & DEFINITION :LKX :NOT ROLLED HEAVY PEATE CUSTOMER DEMIR PRODUCT INFORMATIONS VANUFACTURER) HERESY CERTITY THAT THE MATER AL CESCRISED HEREIN 3 71-13 ASTM AS72-15 300W/350W / CR60 TYPE 2;ERDEMIR 3246) FULLY KILLED AND FINE .AS. 716557 716657 716657 716657 SEAT NO , t. End., i "ransverse, L. Longitudinai, P.S. Piece of Stice, P. P. Piece of Plate | Nead Office), 0352-0005-4260-0020; Trade Registry Number(Eslanbul Department), 90655, Trade Registry Number(Eregist Department): 1574/277 | Barbaros Mah. Ardiç Sok. No. 6 34748 Alaşenir ISTANBUL - TURKEY MERCURY COLPOUNDS NO WELD REPAIR 7156574020C320 17023022943L010 171665640900410 71665740200110 | 71665740200120 | 71565740200210 WIRTH STEEL 71665740200310 71665740200220 71665740100420 71665740100310 71665740100220 70230229421010 71665640900320 GRAIN PRACTICE 71665740100410 71665740160320 71665540900210 PLATE 5 0 3 P 0 P 200 DENTING OF THE PROPERTY OF THE == POS YIELD TENSILE % | TEST ==== SAM 425 425.6 425.6 422.7 422.7 4.0.375 X 96 X 240 II 425 225 436 NIMAZ NIMZ TENSILE TEST STRENGTH 631 GD Jh. WITH MILL EDGE 566.8 573.7 573.7 1,7843 E 23 0 0 1 1 0 2 4 N N MECHANICA DECOR 95 240 INCH WITH SATISFAC BEND TYPÉ 2(ERDENIR 3246) EEN MADE BY THE BASIC OXYGEN PROCESS AND SATISFACTORY RESULTS YAE B 0 3 JAV. BH THE (III (/II A = 0 -4 CERTIFICATE EN 10204 : 2004 TYPE 3.1 高SS HARD POSITION MACHEST, joule AVR TEM! TESTED N/M/2 五五五 die! IN ACCORDANCE WITH THE RULES OF 000 0000 CHEMICAL 198 \$ 50 00 00 \$ 50 00 00 1007 007 197 1.187 0. 1.187 E 7 9.017 9. 7 0.017 0 7 0.917 0 7 0.017 0. 00000000000 0.020 0.004 0.193 (0.020 0.004 0.020 0.004 0.193 (0 .017 0. COMPOSITIO 005 005 WWW. ordenier com 0 175 0. ERDEMIR 0.175 0.175 0.175 3¢ W 8999999999 0.031 .03 * 7 0.022 0. 00000000000 0000 DATE ::18/19/2017
CERTIFICATE NO :716126:1
PAGE NO : 5 N. CAST .021 021 021 021 021 021 022 34 G 0000 045 045 0 20 20 90 673 074 074 074 074 074 .073 × 36 ANALYSI 6655 S

EREGLI DEMIR ve ÇELIK FABRIKALARI T.A.Ş OUTSTANDING CAPITAL : 3.500.000.000 TL PRODUCTION PLANT : EROEMIR

TEST CERTIFICATE EN 10204 : 2004 TYPE 3.1

DATE : 18/10/2017 CERTIFICATE NO : 71612611 PAGE NO : 6

ALYSIS

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MERSIS Number(Islanbul Head Office) 5352-0006-4260-0020, Trade Registry Number(Islanbul Department) 90659; Trade Registry Number(Eregli Department) 1574/277
Head Office, Islanbul: Barbaros Man. Ardic Sok. No. 5 34746 Alaşekir ISTANBUL - TURKEY



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EXECUTION OF CELLIK FABRIKALARI T.A. \$
OUTSTANDING CAPITAL : 3.500.000.000 TL
PRODUCTION PLANT : EROBMIR

TEST

CERTIFICATE EN 10204 . 2004 TYPE 3.1

CERTIFICATE NO :71612611

18/10/20:7

WIRTH STEEL
78603204709
9.530 X 2438 X 6096 (0.375 X 96 X 240 INCH)
CSA G40.21-13 / ASTM A572-15 300W350W / GR50 TYPE 2(ERDEMIR 3246)

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EREGLI DEMIR vo ÇELIK FABRIKALARI T.A.Ş.
OUTSTANDING CAPITAL 3 500:000.000 TL
PRODUCTION PLANT : ERDEMIR

TEST CERTIFICATE EN 10204 : 2004 TYPE 3.1

DATE : 18/10/2017 CERTIFICATE NO : 71612611 PAGE NO : 8

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NO MERCURY COMPOUNDS NO WELD REPAIR AND FIME GRAIN PRACTICE	CUSTOMER :WIRTH STEEL ORDER 10 :78603204709 DIMENSIONS, mm : 9.530 X 2438 X 8096 { 0,375 X 96 X 240 INCH } STANDARD & GRADE :CSA G40.21-13 / ASTM A572-15 300W/350W / GR30 TYPE 2{ERDEMIR 3246} PRODUCT TYPE & DEFINITION :LKK :HOT ROLLED HEAVY PLATE WITH MILL EDGE
	(ERDEMIR 3246)

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THE OF MAN OF WAR OF WA ST IT 0237042302|14,100 0237042299[12.860] TICKET NOIMEIGHT EXECUTION CAPITAL : 3.500.000.000 TL PRODUCTION PLANT : ENDEMIR (THE MANUFACTURER)
N G40.21-13 / ASTM

 GRDER NO
 :78603204709

 DIMENSIONS, mm
 : 9.530 X 2438 X 5036 { 0,375 X 96 X 240 INCH }

 STANDARD & GRADE
 :CSA G40.21:3 / ASTM A572-15 300W/350W / GR50 TYPE 2(EROBAIR 3246)

 PRODUCT TYPE & DEFINITION :LNX :HOT ROLLED HEAVY PLATE WITH MILL EDGE

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ANALYSIS

:18/10/2017



90659, Trade Registry Number(Eregi Department):153

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Head Office E End. T. Fransverse,

iverse, L.Longitudinal, P.S.Piece of Slice, P.P Piece of Plate 0352-0005-4260-0020; Trade Registry Number(Islanbul Department)

34746 Ataşehir ISTANBUL - TURKEY

QUALITY

Office Istanbul

Barbaros Mah. Ardıç Sok. No: 6

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COTSTANDING CAPITAL : 3.550.000.000 TL
PRODUCTION PLANT : ERDEMIR

CUSTOMER
:WIRTH STEEL
CODER NO
: 78503264769
: 78503264769
: 9.530 X 2438 X 6095 { 0.375 X 96 X 240 INCH }
: 9.530 X 2438 X 6095 { 0.375 X 96 X 240 INCH }
STANDARD & GRADE
:CSA G46.21-13 / ASTM A572-15 300W/350W / GR50 TYPE 2{ERDEVIR 3246}
PRODUCT TYPE & DEFINITION :LKK :HOT ROLLED HEAVY PLATE WITH MILL EDGE

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PERSIS Number istanbur Head Office): 0332-0005-4260-0020; Trade Registry Number(Estanbul Department): 90659; Trade Registry Number(Ereji Department): 1574-277
Tend Office Istanbur Berbard, Mah. Art 4 Sok. No. 6. 34146 Alaşabır STANBUL. TURKEY

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DATE .187:072017
CERTIFICATE NO :71812611
PAGE NO : 10 . 18/10/2017

TEST CERTIFICATE

EMEGLI DEMIR VE ÇELIK FABRIKALARI T.A.Ş.
OUTSTANDING CAPITAL 3.500.000.000 TL
PRODUCTION PLANT : ERDENIR

TEST CERTIFICATE EN 10204 : 2004 TYPE 3.1

DATE :18/10/2017 CERTIF/CATE NO :71612611 PAGE NO : 11

CUSTOMER

:WIRTH STEEL

ORDER NO

:78603204709

DIMENSIONS, mm

: 9.530 X 2438 X 6096 { 0.375 X 96 X 240 INCH }

STANDARD & GRADE

:CSA G40.21-13 / ASTM A572-15 300W/350W / GR50 TYPE 2{ERDEMIR 3246}

PRODUCT TYPE & DEFINITION :LKX .HOT ROLLED HEAVY PLATE WITH MILL EDGE

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 AERSIS Number(Istanbul Head Office)
 0352-0006-4250-0020
 Trade Registry Number(Istanbu.
 Department)

 Bad Office.
 Istanbul Harbaros Man Ardig Suk No. 6
 34746 Araşehir (STANBUL TAKEY



EREGLI DEMIR ve ÇELİK FABRİKALARI T.A.Ş. OÜTSTANDING CAPITAL 3.500.000.000 TL PRODUCTION PLANT ERDEMIR

EST CERTIFICATE
EN 10204 : 2004 TYPE 3.1

CUSTOMER :WIRTH STEEL

CROER NO :78603204709

:78603204709

: 9.530 X 2430 X 6056 { 0.375 X 96 X 240 INCH }

STANDARD & CRADE :CSA G40 21-13 / ASTM AS72-15 300W/350W / GR50 TYPE 2{EROEMIR 3246}

PRODUCT TYPE & DEFINITION :LKK :HOT ROLLED HEAVY PLATE WITH MILL EDGE

LOT NO: 1 NO MERCURY COMPOUNDS NO WELD REPAIR FULLY KILLED AND FINE GRAIN PRACTICE

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Æ(THE MANUFACTURER HEREBY CERTIFY THAT THE MATERIAL DESCRIBED HEREIN HAS BEEN MADE BY THE BASIC OXYGEN PROCESS AND TESTED IN ACCORDANCE WITH THE RULES OF SA G40.21-13 / ASIM A572-15 300W/350W / GRS0 TYPE 2(ERDEMIR 3246) WITH SATISFACTORY RESULTS. DENTIFY VE CELLY QUAL ITY OUT THE CELL OU AND THE PROPERTY OF THE PARTY OTE: T-Top. M.Widdle, E:End, T Transverse ERS'S Number(!stambul Head Off-ce) 9352.0 dad Office: islambul 6arbaros Mah Ardiç SYRISE, Likongilucinal, P.S.Piace of Sirce, P.P. Biace of Plate 0352-0606 4263-0625 Trade Registry Number(Islamoul Department) Arcic Sok. Va. 6. 34746 Ataşahı: ISTANBUL TURKEY

90553. Trade Registry NumberiEregit Department) 1574 ERDEMIR erdymar com

DATE :18/10/2017 CERTIFICATE NO :7161261/ PAGE NO 12

CAST ANALYSIS

PPU

ERECLI DEMIR WE CELIK FABRIKALARI T A S. OUTSTANDING CAPITAL 3.500.000.000 TL PRODUCTION PLANT EROBMIR TEST CERTIFICATE EN 10204 : 2004 TYPE 3.1

DATE :18/10/20 CERTIFICATE ND :71612611 PAGE NO : 13

:18/10/2017

CUSTOMER :WIRTH STEEL

ORDER NO :78603204709

DIMENSIONS. mm : 9.530 X 2438 X 6036 { 0.375 X 96 X 240 INCH }

STANDARD & GRADE :CSA G40.21-13 / ASTM A572-15 300W/350W / GR50 TYPE 2(EROBAIR 3246)

PRODUCT TYPE & DEFINITION :LKK :HOT ROLLED HEAVY PLATE WITH MILL EDGE LOT NO: 1 NO MERCURY COMPOUNDS NO WELD REPAIR FULLY KILLED AND FINE GRAIN PRACTICE

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ERECLI DEMIR WE CELIK FABRIKALARI T.A.S.
OUTSTANDING CAPITAL : 3 500.000.000 TL
PRODUCTION PLANT : ERDEMIR

CUSTOMER
WIRTH STEEL
ORDER NO
78503204709
0IMENSIONS, mm
9.530 X 2438 X 8098 { 0,375 X 96 X 240 INCH }
STANDARD & GRADE
CSA G40.21-13 / ASTM A572-15 300W/350W / GR50 TYPE 2(ERDENIR 3246)
PRODUCT TYPE & DEFINITION: LMX: HOT ROLLED HEAVY PLATE WITH MILL EDGE

LOT NO: 1 NO MERCURY COMPOUNDS NO WELD REPAIR FULLY KILLED AND FINE GRAIN PRACTICE

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DTE T.Top. M.M.iddia, E.End. T.Transverse. L.Longriudinal. P.S.Piece of Since. P.P.Piece of Plate
ERSIS Number(Islanbul Head Office). 0352-0005-4250-0020, Trade Registry Number(Islanbul Department). 90659. Trade Registry Number(Ered: Department). 1574/277
ipac Office. Islanbul. Barbarcs Mah. Ardic Spi. No. 6. 34745 Alaşekir ISTANBUL. TURKEY

WAN BITED IT COM !! ERDEMIR

DATE :18/19/2017 CERTIFICATE NO :71612611 PAGE NO : 14

TEST CERTIFICATE EN 10204 : 2004 TYPE 3.1

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Barbaros Wah, Ardic Sok No 6

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PRODUCTION PLANT : ENDEMIR

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DATE ::8/10/2017 CERTIFICATE ND :71612611 PAGE NO : 15

18/10/201

CUSTOMER :WIRTH STEEL
ORDER ND :78603204709 :78603204709
IMENSIONS, mm : 9.530 X 2438 X 6096 { 0.375 X 96 X 240 INCH }
STANDARD & GRADE :CSA G40.21-13 / ASTM.ASTZ-15 300M/350W / GRS0 TYPE 2(ERDENIR 3246)
PRODUCT TYPE & DEFINITION :LNX :HDT ROLLED HEAVY PLATE WITH MILL EDGE

LOT NO: 1 NO MERCURY COMPOUNDS NO WELD REPAIR FULLY KILLED AND FINE GRAIN PRACTICE

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*ÔTE T-Top, M:Middle, E.End, T:Transverse, L.Longitudinal, P.S:Piece of Slice, P.P:Piece of Plate ARSIS Number(Istanbul Head Office): 0352-0606-4253-3020; Trade Registry humber(Istanbul Department) iead Office: Istanbul Barbards Mah Ardiç Sok No: 5 34748 Alaşehir ISTANBUL - TURKEY 90656 Trade Registry Number (Eragi: Department) 1572/840

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OUTSTANDING CAPITAL 3.500.000.000 TL
PRODUCTION PLANT : EROEMIR CUSTONER ORDER NO EROEMIR WIRTH STEEL

TEST CERTIFICATE
EN 10204 : 2004 TYPE 3.1

DATE ::18/10/25 CERTIFICATE NO :7161261/ PAGE NO : 17

18/10/2017

78603204709

DIMENSIONS. MTD: 9.530 X 2438 X 5096 { 0.375 X 96 X 240 INCH }
STANDARD & GRADE CSA G40.21-13 / ASTM A572-15 300M/350W / GRS0 TYPE Z(EROEMIR 3246)
PRODUCT TYPE & DEFINITION: LKK: HOT ROLLED HEAVY PLATE WITH MILL EDGE

90659 Trade Registry Number (Eregl: Department)::51 ERDEMIR

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TESTED

IN ACCORDANCE WITH THE RULES OF

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18603204709
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19.50 X 2438 X 6096 (0.375 X 98 X 240 INCH)
19.50 X 2438 X 6096 (0.375 X 98 X 240 INCH) 72705840700410| |72705840709420| 72705840800420 71565940100 101 72705846700210 72735840700320 71665940100120 72705840700120 GRAIN PRACTICE 72705840700110 72705840600420 PLATE NO 5 Ardiç Sok sverse. L'Longitudina! P S.Piece of Stice. P P.Piece of Plate 0352-0000-4250-0020. Trade Registry Number(Istambui Department) Arote Sok No: 6 3474c Atagehir ISTANSUL . TIEKEY 9 70 o p QUALITY 444444444 === POS YIELD TENSILE % DEANIR VE CELL 44443 SAN 427 427 427 413 427 439.3 453 413.8 413.8 413.8 427.6 34746 Alaşehir ISTANBUL NAME NAMES TENSILE 583 583 567.8 573.7 573.7 HEREIN HAS BEEN MADE BY THE BASIC WITH SATISFACTORY RESULTS TEST in th in 4,4843 1 1 1 1 ω ω ω 4 4 0 22222 MECHAN TEST! Z 모으 & · TURKEY CAL VAL EST CERTIFICATE X 117 3 0 BASIC SSEN HARD OXYGEN PROCESS 90659. Trade Registry Number(Eregis Separiment). POSITION : IMPACT TEST, joui'e مه 88 AVR TESTED C | NIMAZ 至 2 TEMP ACCORDANCE WITH 0000000000 195 195 196 195 HEWICAL COMPOSITION, CAST <u> م</u> ما 206 0.016 0 206 0.016 0 206 0.016 0 of Z 0 3.016 0.006 0 0 018 0.006 0 0.016 0.006 0 0.016 0.006 THE RULES OF 006 ERDEMIR 6 0.185 0. 6 0.185 0 0.158 AR CO 0.033 0 0.033 0 0.033 0 0.033 0 035 2€ ≥ 000 CERTIFICATE NO :71612611
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EREGLI DEMITY VY ÇELIK FABRIKALARI T.A.Ş.
OUTSTANDING CAPITAL : 3.500.000.000 TL
PRODUCTION PLANT : ERDEMIR

EST CERTIFICATE EN 10204 - 2004 TYPE 3.1

DATE

.18/10/2017

CERTIFICATE NO :71612611
PAGE NO : 19

CUSTOWER

CROER NO

:78603204709

DIMENSIONS, mm

: 9.530 % 2438 % 6096 § 0.375 % 98 % 240

STANDARD & GRADE

-CSA G40.21-13 / ASTM A572-15 300W/350W / GR

PRODUCT TYPE & DEFINITION :LKK :HOT ROLLED HEAVY PLATE WITH MILL EDGE

FULLY KILLED AND FINE GRAIN PRACTICE

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vÖTE. T-Top M:Middie, E:Ero, I Transverse, L.Longitudinai P.S Piece of Since, P.P Piece of Plate vËRSIS Numberistonbul Head O'' tel 1932-1036-1260-0020, Trade Registry Numberi(İstünbul Department 193659, Trade Registry NumberiEreğir Departmenti 1574/272 1930 Office Islanbul Barbaros Man Ardı; Sov. No. 6. 34746 Alaşehir ISTANBUL TURNEY

ERDEMIR

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COTSTANDING CAPITAL 3.500 000.000 TL PRODUCTION PLANT EROENIR

TEST CERTIFICATE EN 10204 2004 TYPE 3.1

CERTIFICATE NO -71612611
PAGE NO : 20

18/10/2017

 QUSTOMER
 :WIRTH STEEL

 ORDER NO
 :78603204709

 DIMENSIONS, rm
 : 9.530 X. 2438 X. 6086 (0.375 X. 96 X. 240 INCH)

 STANDARD & GRADE
 :CSA G40.21-13 / ASTM A572-15 300W/350W / GRS0 TYPE 2(EROBMIR 3246)

 PRODUCT TYPE & DEFINITION :LKK :HOT ROLLED HEAVY PLATE WITH MILL EDGE

70 FULLY KILLED AND FINE GRAIN PRACTICE

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WE(THE MANUFACTURER) HEREBY CERTIFY THAT THE WATERIAL DESCRIBED HEREIN HAS BEEN MADE BY THE BASIC OXYGEN PROCESS AND TESTED IN ACCORDANCE WITH THE RULES OF CSA G40.21-13 / ASTM ASTZ-15 300W1350W / GRS0 TYPE Z(ERDEMIR 3245) WITH SATISFACTORY RESULTS

ERDEMIR

WWW BICENI' COM !!



RHX5-HHJ



ESSAR STEEL ALGOMA INC., 105 West Street, Sault Ste. Marie, Ontario, Canada P6A 7B4

LAVAL, Quebec, Canada **BOUL LE CORBUSIER #201-4054** LES ACIER TRANSBEC (1997) LTEE Sold to Customer Name and Address: SO No., item & Date .: 8059359 000020 2018/01/09 VARENNES, Quebec, Canada Ship to Customer Name and Address: Shipment No.& Date.; RUE JEAN COUTU 350 LES ACIER TRANSBEC (1997) LTEE 1200010535 2018/01/10 TC No., Date & Time : Carrier: Cust Part No .: BOL NO. **Customer PO NO./item:** CP RAIL (CAD FUNDS) - FURX 380701 ESA-456203 2018/01/28 - 21:09:36 1200010535 G-48538 / 2

Customer Specification: HR STEEL SHEET HSLA SQ / SS To the Chemistry of Multi Cert CSA G40.21 50W (2013) / CSA G40.21 44W (2013) Top Semi Critical Surface Improved Shape Gauge type MIN - 0/+

ESSAR STEEL ALGOMA INC, HEREBY CERTIFIES THAT THE MATERIAL HEREIN DESCRIBED WAS MADE AND TESTED IN ACCORDANCE WITH THE RULES OF THE SPECIFICATION SHOWN. ALL RESULTS ARE RETAINED IN ACCORDANCE WITH THE COMPARY'S STANDARD RECORD KEEPING PRACTICES.
THIS MILL TEST REPORT MAY NOT BE REPRODUCED EXCEPT IN FULL WITHOUT WRITTEN APPROVAL OF ESSAR STEEL ALGOMA INC. IF YOU RECEIVE THIS DOCUMENT AND ARE NOT THE INTENDED RECEIVER, PLEASE CALL (705)45-4085 FOR INSTRUCTIONS ON METHOD OF DISPOSAL OF DOCUMENT. THIS TEST REPORT HAS BEEN GENERATED BY A COMPUTERIZED SYSTEM AND IS VALID WITHOUT A PHYSICAL SIGNATURE. 3511D4 5511D4* HEATS INDICATED WITH (*) FINE GRAINED. HEATS: INDICATED WITH (*) Made in Canada for NAFTA duty preference and NAFTA marking purposes Heat No. Supplementary Instructions: Test Cert 1:mtr@coilex.ca Test Cert 2: nathalic.legault@aciertransbec.com Heat No. (wt%) Insp T/R: Test Report For Info Only ALL HEATS FULLY KILLED. ensile Tests SO QUALITY AND ENVIRONMENTAL CERTIFICATES AVAILABLE AT WWW.ALGOMA.COM 0.3650 " x 48.000 " Batch No. 0.18 DSPC ALG SRCE 0.87 LAB 0.3650 GAUGE P S Si Cr Ni Cu Mo Al Nb V TI
0.008 0.002 0.040 0.01 0.01 0.02 0.00 0.026 0.019 0.000 0.00 XBT5027 COND A N METH DIR 5511D4-54 Heat No-MS L0C Quantity 42,532 LB 62.0 YIELD(KSI) MECHANICAL 78.0 TENSILE(KSI) PROPERTIES . PCS EL SCALE 36 ELONG(%) Cust Use: STRUCTURAL 0.001

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KASHIF REHMAN

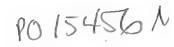
MANAGER METALLURGICAL SERVICES

"WARNING" THE TEST RESULTS AND VALUES REPORTED HEREIN INDICATE ONLY THAT (1) THE PARTICULAR STEEL FOR WHICH THIS CERTIFICATE IS ISSUED MEETS THE MINIMUM SPECIFIED YIELD STRENGTH AND (2) THE ANALYSIS AND PHYSICAL PROPERTIES OF SUCH STEEL ARE IN CONFORMANCE WITH THE REQUIREMENTS OF THE SPECIFICATION INDICATED. THE RESULTS OR VALUES REPORTED HEREIN CAN NOT SELUSED TO QUALIFY THE STEEL FOR ANY SPECIFICATION OTHER THAN THE ONE INDICATED AND CAN NOT BE RELIED UPON FOR ANY PURPOSE. (INCLUDING DESIGN OR CALCULATIONS) AS REPRESENTING THE ACTUAL STRENGTH OF SUCH STEEL.

SIGNATURE

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Certificate of	complian	ce (Certific:	at de confo	rmité)	i	Norme	s: (AN	SI H35	.1-1997	& (AS	TM B221)		/c/							
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SIGNATURE



INSPECTION CERTIFICATE № 17.147501

EN 10204 - 3.1

5, Zavodsk	KAMENSK L aya Str., Kam	iensk Urals	ky, Sverdlov	sk Region.	623405, Rus	ssia Tel: +7	(3439) 39 5	4 17 Fax: +7	(3439) 39 5	12 49	
Buyer: T	hyssen Krupp h	laterials NA				Quantily, pcs:		8			
Consignes:	THYSSEN H	CRUPP MAT	ERIALS NA		1	Net Weight, k	g.:	2388			
P.O. No:		PEC-28835	50			S.O. No:		N17441			
						item No:		1.3			
Anicle No:		•				Package No:		730338			
Description	of Goods:	Plates					F	Requirements o	n no Product	K	
	Grade of Produc	t	Dame	ensions, inch (mmi	Material confi	nms to quality	of alloy 6	061 T651	1	
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•			19.050X153	36,7X3670.3	111	AMS. M.A	-250/11A (2	II Part B (201 008); SAE Ai ropean Unio	MS 4827 Ro	4-N(2014).	Inis
					Mechanica	al Properties					
The Condition of Tested	Let No. He	at lot No. H	T Charge	Sampling direction	Ten Strength,		Yeld Strengt Clenchi	ing lest	Elongati	on, \$5	Hardness, HBW
Standards					สมัต	max	nin	กาลผ	triirt	REAR	
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	651632 (12	-5598 /-	LT		46.1	46.1	40.9	40.9	11.9	11.9	
		My			Chemical C	omposition,	%				
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Required	0.40 - 0.8	0.7	0.15 - 0.40	0.15	0.8 - 1.2	0.04 - 0.35	0.25	0.15	-	-	
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Required			-	-	-	-	-	-	0.05	0.15	remainder
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					Othe	r Tests					
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Method							MAX 0.25		TE CORNILÀ OL U	THIRD ENGINEERS TABLE	Sales I sales sur .

On behalf:

KUMZ J.S.Co

Date:

12.12.2017

QCB Inspector

Hmylnina N.A.

Inspection Department Engineer METALL

Alehina N.V.

KUSTI DUJEV 740 Imperial Road North Guelph, ON N1K1Z3 Canada

METALLURGICAL TEST REPORT

6870 Highway 42 East Ghent, KY 41045-9613 (502) 347-6000

Certificate: 276092

Customer: 007080 003

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Date: 3722/2017 Steel: 303

Plaisht (2) Corregions

Red Hatio: 69.4 :1

Your Orders

PRODUCT DESCRIPTION:
Round Bar, Annaking, Cold Draw
Use 30300 AFTH ASS/12 DE 10204 3.1, ASTH A484/15
AME 5640V Tris 1, Oge-7648 COMDITION A
SOLUTION ANSKAL THEP 1900P MICH

mas Order: IN 0244860 03

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REMARKS:
COMPLIES W/REQUIREMENTS OF DEAR 252.225-7009 ED DIRECTIVE
2011/65/ED.Rohe. RAP-ACO+CC. HO WELD REPAIR. MELTED AND MFG
IN USA PRISE FROM MERCURY AND LOW MELTING ALLOY CONTAMINATION

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NAS hereby certifies that the analysis on this certification is correct. Based upon the results and the accuracy of the test methods used, the material meets the specifications stated. These results relate only to the items tested and this report cannot be reproduced, except in its entirety, without the written approval of NAS.

Technical Dept. Mgr.

KRIS LARK

3/22/2017

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Larrondo EOIU (VEZCANA) España

P.O. Hes 1 323-48686 Bilbin Fel. 54-64) 4-71 13 (ii)

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 ACEROS INOXIDABLES

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Trade Mark - Zeichen des Fielersteskes Anagrama del summentiador
Works Inspector Stamp - Werkssachverständiger

Sello del Inspector Certificate no - Pruf-Nr Date-Datum-Fech Cortificate type - APZ Nach EN 10204/3.1 271387 Certificado nº 02 - 05 - 2016 Certificado tipo Your order Nº Our order No Heat Bestell - Nr C101814 Schmelze 409862 Warles - Ne 599799 Pedido Nº Colada Nº de Referencia According to Steel Grade **ASTM A 582** Entsprechend A 582M-12. Werkstoff AISI-303 Corresponde Calidad Weight Bundles Bar: Shape and Size - Gegenslad Tolerance - Toleranz Perilly dimension Tolerancia Bunde 2 Stabe **Gewitchit** 2549 Lbs Barras Peso Bultos **ROUND 3/4"** ASTM A 484 /TB.7 Requirements - Anforderungen - Exigencias QQ-\$ 764B-70. AMD2 COND.A. SAE AMS 5640U-07. TYPE I. EN 10.088-3.2014. 1.4305. **MECAMAX - PLUS** Melling process / Erschmelzungsart / Proceso de Fusión Heat treatment / Warmebehandlung / Tratamiento térmico 1050C 4H/Std WATER/WASSER/AGUA E.A.F. / A.O.D. Solution annealed/Abgeschreckt/Hipertemple-Cold drawn/Gezogen/Estirado-Polished/Poliert/Pulido-Lest results - Ergebnis der Prufungen - Resultados de los ensayos impact test / Kersbschlag / Resiliencia Ro0 2% Rp 1% Haroness Dimension of Specimen Rm A ISO V f. lb %L 5D - %L 4D Harte Abmessungen des Probestabes K\$1 KSI KSI HBw Medida de las probetas Min RD. 12,50 mm. 262 Max Spec No Probe No 229 Temperature °C 103 37 55 74 20 Pro Nº Ni Cu N Co P \$ Cr Mo C Si Mn 8,00 0.150 17,00 Min 0.200 19,00 10,00 0.70 0.1000 2.00 Max. 0.150 1.00 0.0365 0.15 8.45 0.53 0,309 0.34 0,046 0.39 1,83 0,035 17.65 Gram Size Ant-moving test Visual and dimensional inspection Radioactivity inspection Spektrosk Verwechslungsor (), K. Ant:mezcla Besichtingung und Ausmessung O.K. Control visual y dimensional Korngrasse Radioakt.vitätskontrolle O.K. Controlde Radioactividad Tamaño de grano Remarks - Bemerkungen - Observaciones EDV / EDP

Free From Mercury contamination/Quecksilberfreiheit. No weld repair. EDV / EDP Ace, EN 10,204 Marian Tejedo Quality Mng.

Works Inspector Dei Werksachsers undige Inspector de fabrica 198881



Dart.

PO 15463 N

ZHENGZHOU MINGTAI INDUSTRY CO., LTD

NO.6 CHANGCHUN ROAD, HIGH AND NEW TECHNOLOGY ZONE, ZHENGZHOU HENAN CHINA TEL: 371-67898611 FAX: 371-67898612

INSPECTION CERTIFICATE

BUYER:

INVOICE NO .:

CONTRACT NUMBER:

4500849898/4500850574/4500850766

LOADING PORT:

TIANJIN, CHINA

DESTINATION:

TORONTO, CANADA

SHIPPING MARKS:

N/M

DATE:

1/19/18

DESCRIPTION OF GOODS:

ALUMINIUM SHEETS AND COILS ALLOY 3003/H14 AND 5052/H32

P.O. NO.: 4500849898/4500850574/4500850766

DAP TORONTO, CANADA

				ACTU	JAL MILL	CHEMIC	AL UNIT	:%				
Alloy No.	Temper	Lot No.	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Others	Al
	STA	NDARD	0.6	0.7	0.05-0.2	1.0-1.5			0.1	-	0.15	REMAIN
3003	H14	GFB1712W30158	0.1796	0.5609	0.113	1.1474	0.001	0.0082	0.0034	0.0321	0.15	REMAIN
3003	H14	GFB1801W30033	0.1803	0.5966	0.122	1.1681	0.0085	0.0082	0.0026	0.0341	0.15	REMAIN
3003	H14	GFB1801W30034	0.1718	0.5806	0.1285	1.1684	0.0151	0.007	0.0028	0.0377	0.15	REMAIN
3003	H14	GFD1712W30019	0.1685	0.5761	0.1219	1.1473	0.023	0.0102	0.0047	0.032	0.15	REMAIN
	STA	NDARD	0.25	0.4	0.1	0.1	2.2-2.8	0.15-0.35	0,1		0.15	REMAIN
5052	H32	GFB1712W50264	0.0952	0.3164	0.0194	0.0686	2.408	0.1813	0.0217	0.0185	0.15	REMAIN
			M	ECHAN	CAL PRO	PERTY	EST RE	PORTS				T COLUMN CITY
Alloy No.	Temper	Lol No.		SIZE(MN	1)		SIZE(IN	1)	Ten strer		Yield strength	Elongation
									(MF	Pa)	(MPa)	(%)
				DARD					138-	179	min118	min 5
3003	H14	GFB1712W30158		997*1524			.118*60*		15	7	148	14
3003	H14	GFB1801W30033		175*914	-	.125*36*C			153		126	12
3003	H14	GFB1801W30034		75*914*2			125*36*	96	15	8	149	12
3003	H14	GFD1712W30019	4.82	6115241	3048		190*60*1	20	17	6	164	15
			- STAN	DARD		108			214-	262	min159	min 7
5052	H32	GFB1712W50264	/ 1.	27*1219	'C	100	.050*48*	C	22	3	161	12

We certify that 3003H14 material complies with ASTM B209-14,AMS QQA 250/2 standard. We certify that 5052H32 material complies with ASTM B209-14,AMS QQA-250/8B standard.

MANUFACTURER: ZHENGZHOU MINGTAI INDUSTRY CO., LTD

DENOTION MINISTAL EDUSTRY CO., UK. 区州明泰实业有限公司

浙江永杰铝业有限公司

Zhejiang Yongjie Aluminum Co., Ltd.

Jiangdong Industrial Area, Xiaoshan Economic and Technology Development Zone, Hangzhou, 311222, China

MILL TEST

2115 LINWOOD AVENUE, FORT LEE, NEW JERSEY 07024, USA EMPIRE RESOURCES, INC. TEL: 201.944.2200 X 123/ FAX:201.944,2226

SHIPPING MARKS:NIM

WITCO REMINERS SESSON SHATEM 浙江水杰铝业有限公司

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Invoice No.: YJ170421-3 Date: APR. 21, 2017

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MS FOR ALLOY	1-4-1-71001	107070 4 4 4	20461-1-3	20461-1-1	20465-3-2	20465-3-1	1C065-2-5-3	X311/04294-2	-10240	7111700000	10072-1-4-2	10068-2-1-2	20473-1-2	017030962-1	20462-4-2	1-1-1-4	14808-1-1-4	1A896-1-1-3	117040163-2	20464-3-2	20473-3-1	20474-2-2	20464-1-1	1-100001-1	7111703061.4		Heat Number
5052,H32 ALUN	AA5052 H32	7750 H14	4111 COOC V	AA3003 H14	AA3003 H14	AA3003 H14	AA5052 H32	AA5052 H32	MOUDZ M32	75050 100	A A 6002 1132	AAR080 H20	AA3003 H14	AA5052 H32	AA3003 H14	AAOUOZ H32	AAE050 1100	AA5052 H32	AA3003 H14	AA3003 H14	AA3003 H14	AA3003 H14	AA3003 H14	Zeu Zenewa	200000000000000000000000000000000000000	1 culpet	Alloy/
MATERIAL CONFORMS FOR ALLOY 5052, H32 ALUMINUM ASSOCIATION STANDARDS, ASTM B209-10, AMS-QQ-A-250/8B AND AMS-40161 AND MATERIAL IN ALLOY 2022	0.090"X48"X96"	U.U63 X48 XC	0.000 A40 AC	O O O O O O O O O O O O O O O O O O O	0.032"X48"XC	0.032"X48"XC	0.090"X48"X96"	0.080"X48"X96"	7 11 10 12 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1	0.090 A40 A86	0.100 \40 \0	0 100"7 10"70	ח אייאן אייאר	0.050"X48"XC	0.090"X48"XC	0.125"X48"X96"	0.120 A40 A90	U 105/WAYARACT O	0.032"X36"XC	0.125"X48"XC	0.125"X48"XC	0.125"X48"XC	0.125"X48"XC	U.125"X48"X96"			Specfication
ON STAN	0.089	0.063	0.003	0.000	_	0.032	0.089	0.080	0.080	-	0.100	0.124	0 134	0.049	0.089	0.124	0.124	0.000	0.035	0 124	0 104	0.125	0.124	0.124		200	Actual Thickn
DARDS	1.778	4.435	-	-	ARRA	4.533	2.147	1.799	1.799	794	4.8	4.070	200	4.360	4.412	2.092	2.16/	0.404	2 2004	4 217	4 560	4.570	4.581	2.159		(TM)	N.W.
ASTM	1.830	4.504					2.200	1.854	1.856	1.852	4.702				4.446	2,150	2.222		i_	250	A ROR	4.606	4.618	2.216		(MT)	G.W.
B209-1	0.070	0.160	0.160		_		0.060	0.085	0.085	0.070	0.070				0.170	0.086	980.0	0.090	2 2	9 5		0.170	0.150	0.080	9	0	
O. AMS	0.200 C	0.510	0.510	0.010		0.510	0.200	0.240	0.240	0.200	0.200	0.490	0.000	0.030	0.500	0.230	0.230	0.470	0.000	0.490		0.520	0.500	0.300	7	7	
00.A	0.004	0.080	0.080	_	-		0.006	0.005	0.005	0.004	0.010	0.080			0.090	0.001	0,001		_				0.100	0.010	2)	
250/88	0.007	1.070	1.070	1.00U		1 080	0.020	0.017	0.017	0.007	0.010	1.060		0010	1.060	0.004	0.004		000.1	1.000	3		1.060	0.020	NIN		CHEMICAL COMPOSITION,%
AND	2,460	0.010	0.010	0.010	0.010	000	2 430	2.400	2,400	2.460	2.440	1	2.010	7 270	0.010	2.470	2.470	0.028	0.010	1	0.010	010	0.010	2.530	- P	4	CAL CO
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D MATS	0.010	0.040	0.040	0.040	0.040		_	0.015	0.015	0.010 (0.020	0.040	0.01	_	_	0.020	0.020	0.010		0.040	0.000	0000	_	0.020	T		0,
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V 2002	31.8	21.0	21.0	21.8	21.8	01.0	2 0	31.9	31.9	31.8	31.9	22.8	32.6	20.3	20.00	32 1	32.1	23.2	23.1	22.3	8.77	200	22 2	33.1	(KSI)	7.0	NE PA
20.0	28.5	19.1	19.1	20.0	20.0	20.4	20.0	0.80	26.0	25.5	26.1	20.2	25.7	10.0	100	25.8	25.8	21.5	20.2	18.6	19.3	10.4	10 1	28.1		Viold	MECHANICAL
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CONFORMS TO ALUMINUM ASSOCIATION STANDARDS, ASTM B209-10, AMS-QQ-A-250/2 AND AMS 4008K, COUNTRY OF MELT AND MANUFACTURE IN CHINA. OF AND BIATERIAL IN ALLUT 3003, H14

84686

Dart

PO 15460 N

(2P)

KAISER ALUMINUM FARRICATED PRODUCTS



CERTIFIED TEST REPORT

http://Online.KaiserAluminum.com

Kaiser Aluminum
Trentwood Works
Spokane, WA 99215-5108
(800) 367-2586

CUSTOMER PO NUMB	ER: WC	RK PACKAGE:	CUSTOMER PA	ART NUMBER:	SHIP RUN/LOAD: GOV'T CONTRACT NUMBER:
C75350-2			*		104192/16
CAISER ORDER NUMB	ER:	SHIP DATE:	ALLOY:	CLAD: TEMPER	PRODUCT DESCRIPTION:
1253344-2		02/19/2018	2024	BARE T3	HT Flat Sheet
WEIGHT SHIPPED:	QUANTITY:	TRU	ICK BAL W.	GAUGE S	DIAMTER/MOTH: LENGTH:
2834 LB	64 PCS EST.	207	2009	0.0630 IN	48.000 IN 144.000 IN
SHIP TO:				SOLD TO:	
ини 2194844:	LOT 241481	B1: 64 pi	eces 105	9081	
		60	a. 0.2	1021	
		1			
AMS 403	7/RevQ~AMS			STM B 209/Rev	ons v14~CMMP 019/RevD~CMMP 025/RevV

Plant Serial: 4498581

Kaiser Order Number: 1253344

Line Item: 2





CERTIFIED TEST REPORT

http://Online.KaiserAluminum.com

Kaiser Aluminum Trentwood Works Spokane, WA 99215-5108 (800) 367-2586

LOT: 241481B1 CAST: 597 DROP: 82 INGOT: 2

Melted in USA (ASTM E8/B557) (EN 2002-1)

Tensile: Temper Dir/#Tests Ultimate KSI (MPA) Yield KSI (MPA) Elongation %

T3 LT / 02 (Min:Max) 65.7:65.8 43.8:44.0 18.5:18.9

(453 : 454) (302 : 303)

(ASTM E1251)

Chemistry: SI FF. V CU MN MG CR ZN TI ZR Actual 0.07 0.18 4.6 0.62 1.3 0.01 0.12 0.02 0.01 0:00 TOT

SI FE CU MN MG CR ZN TI V ZR OTHER 2024 MIN 0.00 0.00 3.8 0.30 1.2 0.00 0.00 0.00 0.00 0.00 MAX 0.05 MAX 0.50 0.50 4.9 0.9 1.8 0.10 0.25 0.15 0.05 0.05 TOT

Aluminum Remainder

CERTIFICATION

Kaiser Aluminum, Trentwood Works, is ISO 9001, AS9100, and ISO 14001 certified, and hereby certifies that all material shipped under this order: * has been inspected, tested, and found to be in conformance with the requirements of the specifications indicated herein. All test equipment and measuring devices are calibrated and certified in accordance applicable specifications. For material thicknesses outside specification limits, mechanical properties are as shown herein and chemical composition meets specification requirements. Reported elongation values have been measured as elongation at fracture. * was melted in the United States of America or a qualifying country per DFARS 225.872-1(a), was manufactured in the United States of America, and meets the requirements of DFARS 252.225 for domestic content. * has been thermally processed in compliance with AMS 2772, where applicable. * is mercury free, within the limits of detection of ASTM E1215 (<1ppm). * is in compliance with RoHS 2, European Union Directive 2011/65/EU. * is in compliance with European Chemical Agency, ECHA, REACH regulations, (EC) No 1907/2006, and Kaiser regularly monitors these regulations for updates. * is free of Conflict Minerals, as defined in Section 15.2 of the Dodd-Frank Act. * is free of weld repair. * meets the reporting requirements of EN10204, Type 3.1. Any warranty is limited to that shown on Kaiser Aluminum's standard general terms and conditions of sale. Test reports are on file, subject to examination. Test reports shall not be reproduced except in full, without the written approval of the Kaiser Aluminum laboratory. The recording of false, fictitious or fraudulent statements or entries on the certificate may be punished as a felony under federal law.

JAMES HEMENWAY, LABORATORIES SUPERVISOR

Plant Serial: 4498581 Kaiser Order Number: 1253344

Line Item: 2

Unsere Innete Nori L/UNS 830403 acc. 15a, ASTM A314-15 SA182/182M, ASME	Verwei 5600 men / S	04:200 sung /0 003459 Standar A282-15	04 / 3 Our in 98 00 rds / A276N	.1 t. Ref/ N 00040 Normas 4-18a, AS	ref in		Da	tum / Da	te / D	27395				
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L/UNS 830403 acc. 15a, ASTM A314-15 SA182/182M, ASME	ASTN	A282-15	A276N 5 Prac	1-16a, AS			500034598 000040							
15s, ASTM A314-15 SA182/182M, ASME	, ASTM	A262-15	5 Prac	t. E. AMS	7 Standards / Normas STM A276/A276M-18a, ASTM A182/A182M-18a, ASTM A193/A193M-18, ASTM									
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_	eel Bar Comp	any in:	spection	Certificate	1080	991			EN 10204	1200	M-3.
Cultipoer		BOL	Ship Date	Customer PO	Item		Customer Item	Item Description	+	1	
		224436	30-Jan-2018	B98839	8785 rev (007	V013302	1-1/4 HR RD 4140ME 188	SEQ LPA FG MST	40	-
All bundles listed	below were produced usin	g steel from	Heat 177658 issu	ed by ALTON STEEL a	nd were co	empleted from Ea	ton Steel Job 8193	84.			
Chemistry	Description			Value	Units	Mechanical	Description	1	Val	ue	Uni
C	Carbon			0.41000	PHGT	BRINELL SURF	Brinell S	Surface	192	.0	BH
Min	Mangasese			0.10000	PMST	Heal Treatment	Description	1	74	×	MA
P	Phosphorus			0.01700	PWGT	AUSTEN TEMP	P Austeniti	ize Temp in Fahrenheit	1600	1700	DE
S	Sulfur			0.02400	PMGT	MAGNETISM-HT	Magnetise	in Gausa	0 -	20	GI
Si	Silicon			0.26000	PWGT	MST-HT	Machine S	Straighten	Satisf	actory	
Ni	Nickel			0.10400	PWGT	TIME AT TEMP	Time at 1	Cemperature	Rep	ort	
Cr	Chromium			0.84300	PWGT	HT4140MELPA	Lamellar	Pearlite Anneal	CONF	DRMS	
Мо	Molybdenum			0.16700	PWGT	Mill Processing	Description		Val	ue	Uni
al.	Aluminum			0.00300	PWGT	MELT COUNTRY	Melted in	Country	US	A	
Cu	Copper			0.27000	PWGT	ROLLED COUNT	RY Rolled in	Country	US	A	
v	Vanadium			0.02700	PWGT	RED RATIO	Reduction	Ratio	39.	93	RE
Clo	Columbium			0.00300	PMGT	ASTM Standard	d Description	1	Val	ne	Un
Ca	Calcium			0.00150	PWGT	A304-05		Alloy Steel Bars End Quenci	h Reg CONF	ORMS	
N	Nitrogen			0.01020	PWGT	A322-13		s, Alloy, Standard Grades	CONF	ORMS	
D1	Ideal Diameter		· · · · · · · · · · · · · · · · · · ·	5.19000	IN	Structure	Description		Val	ue	Uni
Cleantiness	Description			Value	Units	PERCENT LP		amellar Pearlite	70 -	100	PC
SAE J422 OX	SAE J422 Oxide Rat	מתני	_	0.0 - 5.0	NUM	MICROSTRUCTU		Microstructure	8	P	
SAR J422 SI	SAE J422 Silicate			0.0 - 5.0	NUH	Tag Number	inspectance	Qty Units	Length		
NACRO ETCH	Report macro etch			0.0		022-2188051		3905 LBS	18£t		
TOTAL PARTY	To miphon	reauxes.		1000	=Hall	000 110000					
DIAMETER	Diameter			1.2390 - 1.2610							
Jominy	Description		7	Value	Units						
J1	1/16 inch from Que	enched End		56	HRC						
72	2/16 inch from Que			56	HRC						
73	3/16 inch from Que			56	HRC						
74	4/16 anch from Oue			56	HRC						
15	5/16 anch from Que			56	HRC						
16	6/16 inch from Que			36	HRC						
37	7/16 inch from Que			55	HRC						
78	8/16 inch from Que			53	HRC						
39	9/16 inch from Que			52	HRC						
J10	10/16 inch from Qu		1	51	HRC						
712	12/16 inch from Ou			48	HRC						
714	14/16 inch from Ou			47	HRC						
116	16/16 inch from Qu			44	HRC						
116	18/16 inch from Ou			44	HRC						
	20/16 inch from Ou			43	HRC						
	22/16 inch from Qu			43	HRC						
					1 nnc						
132				41	MBC						
120 122 124	24/16 inch from Qu 28/16 inch from Qu 28/16 inch from Qu	enched Enc	1	41	HRC						

We hereby certify the above to be in conformance, and a true copy of data represented in company records. This steel was not subject to weld repair or exposed to mercury while in the possession of Eaton Steel.

Created on 30-Jan-2018

This discurrent was prepared by means of electronic forman and processing and is valid without security.

10221 Capital Avenue, Oak Park, MI 48237 USA

Tel: 248-39

Tal: 248-39

Tal: 248-39 Tel: 248-398-3434 Fax: 248-398-1434



CERTIFIED MILL TEST REPORT

Alton State Test Life #5 Cut Street Alton, IL. 62002-9011 (618) 463-4490 EVT 2496 (618) 463-4491 (Fax)

My conviction expires	846	Subscribed and every to before me, a Hessay Public, in and for the county of Hedeson, State of Elinote	U.S.A. Material qualifies as INATA origination	Steel. No weld or well reports were performed on this stational. This Shall is 100% Electric Air Survivor Machael and Bollad in Stationals.	As marcury, lead, misturn, of alpha consisting material or equipment is used or distinctively added in the production of this		177650	Heat Number	7			177658	Heat Number	\	177658	Took Huggber		Hast Komber	Steel Bar, Not Rolled, 1.2500, 18' 0 *	ASI Ord No. ASI Ord Une Item				8114 TO
	Day of	baltons me, ass of libro	D VLAME	Delta were	of alpha o			TA TO				7	S		0.41	n		1	2500, 18"	08/22/2017 87513	8		102	
		a Notary	None of		and in the			75				5.19	2		0.90	¥					Oak Park, MI 48237		N Sad	
		7,76		on this or	production o			đ	ASTM E-AS Method &:						0.017				gr	Outborner PT.	1 40237		Eaton Steel Corporation 10221Capital Avenue	
		2		a contact	nof this			¥	S Method					THOC	0.024	s			0				9	
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		Quality Leader:	eraby can	Alton Steel Incorporated.	Aberation or reproduction of this report, except in full, t	ADDITIONAL COMMENTS			0		DECIMAL PART MARKETS	æ	36	JOMINY HARDENABILITY USING ASTM A-285 CALCULATED FROM CHEMICAL DI	0.167	3	CHEMICAL ANALYSIS TEST METHODS ASTM E-415 & E-1919	ISM PPPLA	1	Specifications BYZ 1148 ASTH A29-1	W.	622	C B	
Sand Theil	7		B OF ALTIC	ncorporati	appropri	-	•	S	SM: 342			æ	17	DIATED	0.010	2	129-3 M.	=		ASTIM A29-12	Warren, MI 48091-5355	6227 Rinke	Exton Steel Corporation c/o Super Steel Treating Company	
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6			DALANCE OF	l	rate of the			n	-381			\$	0 J12	SQ TV	0.003	WW/C							ALIBO	
ľ			I haraby cursity that the above state are correct as contained in the records of ALTON STEEL INCOMPONATED		Aberation or reproduction of this report, ascept in full, is not glowed without written approved by a representative of							47	314		0.027	<		% Elongation			١			
			_						Charpy			ŧ	316		0.0004			Tel de			l			
												ż	318		0.0010	H		% ROA	10					
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								N M				21	324 3		0.0102	*		Send Test	57, RR =					
												39 37	J26 J32		0.0015	2		*	39.93-1					



Super Steel Treating 6227 Rinke Ave (586) 755-9140 ISO 9001:2008 Registered Warren MI 48091

Quality Report

10/24/17 Date WOBR149388 Q.C. ID No.

Customer: EATON STEEL CORP

Metallurgist: AJR

Metallurgical Certification

Furnace Process : 2
Date Processed : 10/24/17
Accepted Weight : 43050
Accepted Qty : 5
Mill: ALTON
Release No :
Process TY : LPA

Customer: EATON STEEL CORP PLT#2
Grade: 4140
Size: 1.2500
Heat No: 177658
Receiver: BR149388
Cust PO: 162539
Mill Notes:
Our Part: EATO5577
Cust Part: 8785

192 100% PEARLITE Ħ

177658005

267448

0.005

Sample Coil ID#

Decarb FF

HOU HOC

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HOGO.

--- Burface ---

Microstructure

Representative Sampling -- Mid Radius --

819384

422642

MATERIAL:	M304BO.625X3.00	O PO / BATCH NO.:(039632/5066327
DATE:	APR 2 8 7018		
			('0.5
MATERIAL CERT REC'D:	<u> </u>	THICKNESS ORDERED:	.625
QUANTITY RECEIVED:		THICKNESS RECEIVED:	1625
QUANTITY INSPECTED:	13'	SHEET SIZE ORDERED:	WIA
QUANTITY REJECTED:		SHEET SIZE RECEIVED:	N/A
			/

DESCRIPTION	(Ch	CR leck (N)	COMMENTS
SURFACE DAMAGE	Y	N	
CORRECT FINISH	Y	N_	
CORROSION	Y	(N)	
CORRECT GRAIN DIRECTION	W	N	
CORRECT MATERIAL PER M-DRAWING	(Y)	Ν	Astm A276
CORRECT THICKNESS	(Y)	N	
PHOTO REQUIRED	Y	(N)	
CORRECT REF # TO LINK CERT	8	N	Heat # 56170113
CORRECT MATERIAL IDENTFICATION	Y	N	
CORRECT M# ON THE MATERIAL	(4)	N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y	(N)	
DOES THIS REQUIRE AN EXTRUSION REPORT	Υ	N	

CUT SAMPLE PIECE OF	MATERIAL A			SS CHECK.	
TYPE OF MATERIAL SIZE OF TEST SAMPLE HARDNESS / DUROMETER READING	HRC	HRB	DUR A	DUR D	WEBSTER

testers located in the Quality Office

QC 18 INSPECTION	ENGINEERING SIGNOFF (if required)
INSPECTED BY: DAS	SIGNED OFF BY:
DATE: 0-80APR 7	8 2018 DATE:

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Ü	RELATE FROM	PLATE TO PUR ED SPECIFICATI 304/316 BAR" TO	ADDED PLATE TO PURCHASE MATERIAL, ADDED PLATE RELATED SPECIFICATIONS, AND EG., CHANGED TITLE FROM "304/316 BAR/PLATE"	MB	10.11 25	
89	REFOR REF PA	REFORMAT DWG, ADD REF PAR 08-020A	REFORMAT DWG, ADD SPECS (ZN D6-1), REF PAR 08-020A	G.	09.07.15	_
«	NEW ISSUE	SUE		PH	05 08 10	_
REV			DESCRIPTION	ВУ	DATE	_
DESIGN	7	Ž	DAPT AEDOCDACE ITD	120		-
DRAWN	7	9	HAWKESBURY, ONTARIO CANADA	CANAC	2 4	*
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MFG. APPR.	PPR.	1/1/	M304B		CHEET 1 OF 1	
APPROVED	VED	-	ппе		SCALE	_
DE APPR	ŭ.	la la	304/316 BAR/PLATE		NTS	_
DATE	10.1	10.11.25	COPYRIGHT © 2005 BY DART AEROSPACE LTD	ROSPACE	LTD CONDTION THAT TICK	-
			THE STATE WILL FLOW ARTY PRINCEDS: CON COUNTY FOR COMMUNICATION TO ANY OTHER PERSON WITHOUT IN	TO TO ANY ONE	TR PERSON WITHOUT	_

SPECIFICATION CONTROL DRAWING

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PURCHASE MATERIAL: AISI 304/316 SS BAR OR AISI 304/316 SS PLATE (NOTE: AIS) 303 NOT ACCEPTABLE) SPECIFICATION:
PART NUMBER:

ASTM A276 OR ASTM A240 M304B T.TTT X WW.WWW THICK WIDTH

WHERE "T.TTT" = THICKNESS IN INCHES AND "WW.WWW" = WIDTH IN INCHES

EG. 0.5" x 3.0" BAR = M304B0.500X03.000

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MATERIAL: MA	02-173 APR 28	S.06.	3	PO / BATCH	NO.: <u>039</u>	632/506632
MATERIAL CERT REC'D: QUANTITY RECEIVED: QUANTITY INSPECTED: QUANTITY REJECTED:	Y-e5 1441 1441	P12 012	THIC SHE	CKNESS ORDEI CKNESS RECEIN ET SIZE ORDEI ET SIZE RECEIN	VED: 6	63 x12 x12
DESCRIPTION	NCR (Check Y/N)			COMMENT	-S	
SURFACE DAMAGE	YIN					
CORRECT FINISH	(Y) N	4				
CORROSION	YN					
CORRECT GRAIN DIRECTION	(Y) N					
CORRECT MATERIAL PER M-DRAWING	Y N	QQ-	4-250/5	/		
CORRECT THICKNESS	(Y) N		, , ,			
PHOTO REQUIRED	Y (N			_		
CORRECT REF # TO LINK CERT	(Y) N	Hest	#2414	8131		
CORRECT MATERIAL IDENTFICATIO	N (Y) N	10.	7			
CORRECT M# ON THE MATERIAL	(Y) N					
DOES THIS MATERIAL REQUIRE						
ENGINEERING SIGN OFF	YN					
DOES THIS REQUIRE AN	0		_			
EXTRUSION REPORT	YN)				
OUT CAMP E DIE	- OC 114	TEDIAL	ND DDEEGS	MA HADDIE	20.01150::	
CUT SAMPLE PIEC					S CHECK.	
	REC		ULTS BELOV		DUDD	MEDETED
TYPE OF MATERIAL		HRC	HRB	DUR A	DUR D	WEBSTER
SIZE OF TEST SAMPLE						

testers located in the Quality Office

QC 18 INSPECTION		ENGINEERING SIGNOFF (if required)
INSPECTED BY:	DAS 11	SIGNED OFF BY:
DATE:	9-89 APR 2 8 2018	DATE:

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

HARDNESS / DUROMETER READING

SPECIFICATION CONTROL DRAWING

PART NUMBER: PURCHASE MATERIAL: 2024-T3 ALUMINUM SHEET
SPECIFICATION:
QQ-A-250/4 QR AMS-QQ-A-250/4
OR AMS 4037
OR ASTM B209 M2024T3S|.XXX

O

EG. 0.063" THICK SHEET = M2024T3S.063 WHERE ".XXX" = SHEET THICKNESS (IN INCHES)

XXX BY 4FT BY 10FT

PREFERRED SIZE:

B REFORMAT DWG, ADD ASTM 8209 SPEC (ZN 06-1), PAR 09-020A

A NEW ISSUE

REV.

DESCRIPTION

DESCRIPTION

DRAWN

CHECKED

DRAWNOGNO,

DRAWNOGNO, 09.07.07 M2024T3S

M2024T3S

M2024T3S

SHEET 1 OF 1

TITLE

2024-T3 SHEET SPEC

NTS

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HAWKESBURY, ONTARIO, CANADA DS CP 09 07 07 01.09.24 DATE

DE APPR.

MFG, APPR

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MATERIAL: MODE	293 AF	2 i + : PR 2	325.080 PO/BATCH NO: 039632/5066
MATERIAL CERT REC'D: QUANTITY RECEIVED: QUANTITY INSPECTED: QUANTITY REJECTED:	3: 3: 0	200	THICKNESS ORDERED: .080 THICKNESS RECEIVED: .080 SHEET SIZE ORDERED: .488 SHEET SIZE RECEIVED: .488
DESCRIPTION	(Cr	CR neck (N)	COMMENTS
SURFACE DAMAGE	Y	N	
CORRECT FINISH	(Y)	N	
CORROSION	Y	(N)	
CORRECT GRAIN DIRECTION	TY.	N	
ORRECT MATERIAL PER M-DRAWING	(V)	N	Artm B209
CORRECT THICKNESS	(Y)	N	
PHOTO REQUIRED	X	(N)	/
CORRECT REF # TO LINK CERT	(4)	N	Heat #7111704231-1
DRRECT MATERIAL IDENTFICATION	3	N	
CORRECT M# ON THE MATERIAL	(Y)	N	
DOES THIS MATERIAL REQUIRE			
ENGINEERING SIGN OFF	Υ		
DOES THIS REQUIRE AN EXTRUSION REPORT	Υ	(Z)	
CUT SAMPLE PIEC			TERIAL AND PREFORM A HARDNESS CHECK. DRD RESULTS BELOW

CUT SAMPLE PIECE OF	MATERIAL A			SS CHECK.	
TYPE OF MATERIAL SIZE OF TEST SAMPLE HARDNESS / DUROMETER READING	HRC	HRB	DUR A	DUR D	WEBSTER

testers located in the Quality Office

QC 18 INSPECTION	ENGINEERING SIGNOFF (if required)
INSPECTED BY: 11	SIGNED OFF BY:
DATE: 9-89 APR 2 8 2018	DATE:

SPECIFICATION CONTROL DRAWING

PURCHASE MATERIAL: 5052-H32 ALUMINUM SHEET

SPECIFICATION:

QQ-A-250/8 OR AMS-QQ-A-250/8 OR AMS 4016 OR ASTM B289

WHERE ".XXX" = SHEET THICKNESS (IN INCHES)

EG. 0.063" THICK SHEET = M5052H32.063

XXX BY 4FT BY 8FT

ELEASED 2009 -10-30

8	REFOR	MAT DWG, ADD	REFORMAT DWG, ADD B209 SPEC (ZN D8-1), PAR 08-020A	CP	09 09.26
×	NEW ISSUE	SUE		DS	01 06 08
REV.			DESCRIPTION	ВУ	DATE
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DRAWN		0	HAWKESBURY ONTARIO CANADA	CANA	2 8
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MFG. APPR.	8		M5052H32S		SHEET 1 OF
APPROVED	(ED	June	TITLE		SCALE
DE APPR	~	-	5052-H32 SHEET SPEC	O	NTS
DATE	0.60	09.09.26	COPYRIGHT © 2001 BY DARY AEROSPACE LTD THE DOCUMENT WHAT A LANG CONTESTIVE TO AS A SUPPLIED OF THE LANGE CODERING NOT TO RECOVER OF COMMENCENT TO AS A CONTESTIVE TO AS A CONTESTIVE TO AS A CONTESTIVE TO AS A CONTESTIVE TO AS A CONTESTIVE TO AS A CONTESTIVE TO AS A CONTESTIVE TO AS A CONTESTIVE TO AS A CONTESTIVE TO ASSAULT AND A CONTES	ROSPACE	LTD CONDUCTOR

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PART NUMBER:

M5052H32SLXXX THK

PREFERRED SIZE:

MATERIAL:	APR 2 8 2018	PO/BATCH NO. 039632/5066324
MATERIAL CERT REC'D: QUANTITY RECEIVED: QUANTITY INSPECTED: QUANTITY REJECTED:	40102	THICKNESS ORDERED: .050 THICKNESS RECEIVED: .050 SHEET SIZE ORDERED: 4x10 SHEET SIZE RECEIVED: 4x10

DESCRIPTION	(Ch	CR neck (N)	COMMENTS
SURFACE DAMAGE	Υ.	IN	
CORRECT FINISH	(Y)	N	
CORROSION	Y	(N)	
CORRECT GRAIN DIRECTION	(Y)	M	
CORRECT MATERIAL PER M-DRAWING	Y	N	Astm B209
CORRECT THICKNESS	(Y)	N	
PHOTO REQUIRED	X	N	
CORRECT REF # TO LINK CERT	Q	N	Hest # 68817124150264
CORRECT MATERIAL IDENTFICATION	QY.	N	
CORRECT M# ON THE MATERIAL	(Y)	N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y	(Z)	
DOES THIS REQUIRE AN EXTRUSION REPORT	Υ	(N)	

CUT SAMPLE PIECE OF	MATERIAL A	ND PREFOR	M A HARDNE	SS CHECK.				
	RECORD RES	ULTS BELOV	N					
	HRC	HRB	DUR A	DUR D	WEBSTER			
TYPE OF MATERIAL								
SIZE OF TEST SAMPLE								
HARDNESS / DUROMETER READING								

testers located in the Quality Office

QC 18 INSPECTION		ENGINEERING SIGNOFF (if required)
INSPECTED BY:	DAS 11	SIGNED OFF BY:
DATE:	9-89PR 2 8 2018	DATE:

RELEASED A 2009 -10-30

REV. B B REFORMAT DWG, ADD 8209 SPEC (ZN D8-1), PAR 08-020A CP 06 09 25
A NEW ISSUE

DS 01 06 08 DATE DART AEROSPACE LTD
HAWKESBURY, ONTARIO, CANADA
DRAWING NO.
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5052-H32 SHEET SPEC

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10 COLOR OF THE PROPERTY ARROPA СНЕСКЕР М. М. Б. АРРК. АРРКОУЕР ЛИТЕ 09.09.26 DESIGN

PURCHASE MATERIAL: 5052-H32 ALUMINUM SHEET

SPECIFICATION:

QQ-A-250/8 OR AMS-QQ-A-250/8 OR AMS 4016 OR AS TM B209 M5052H32S XXX

WHERE ".XXX" = SHEET THICKNESS (IN INCHES)

EG. 0.063" THICK SHEET = M5052H32.063

XXX BY 4FT BY 8FT

PREFERRED SIZE:

PART NUMBER:

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SPECIFICATION CONTROL DRAWING

MATERIAL: _ DATE: _	M303 RO. 750 APR 2 8 2018	PO / BATCH NO.: <u>03963.2/Sold323</u>
MATERIAL CERT REC'D: QUANTITY RECEIVED: QUANTITY INSPECTED: QUANTITY REJECTED:	Yes 12' 12'	THICKNESS ORDERED: 0.750 THICKNESS RECEIVED: 0.750 SHEET SIZE ORDERED: V/A SHEET SIZE RECEIVED: V/A

DESCRIPTION	NCR (Check Y/N)		COMMENTS
SURFACE DAMAGE	Y	N	
CORRECT FINISH	(Y)	M	
CORROSION	Y	N	
CORRECT GRAIN DIRECTION	(Y)	N	
CORRECT MATERIAL PER M-DRAWING	Y	N	Astm A582
CORRECT THICKNESS	Y	N _a	
PHOTO REQUIRED	Y	N	, , ,
CORRECT REF # TO LINK CERT	Y	N	Har XIL 409862
CORRECT MATERIAL IDENTFICATION	10	N	
CORRECT M# ON THE MATERIAL	(Y)	N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Υ	(3)	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y	(A)	

CUT SAMPLE PIECE OF	MATERIAL A			SS CHECK.	
TYPE OF MATERIAL SIZE OF TEST SAMPLE HARDNESS / DUROMETER READING	HRC	HRB	DUR A	DUR D	WEBSTER

testers located in the Quality Office

QC 18 INSPECTION	ENGINEERING SIGNOFF (if required)
INSPECTED BY: DAS	SIGNED OFF BY:
DATE: 9-89APR	2 8 2019 DATE:

2010-02-02 NW

REV. B SHEET 1 OF 1 SCALE 10.01.05 01 12.20 DART AEROSPACE LTD
HAWKESBURY, ONTARIO, CANADA
M303R COPYRIGHT © 2001 BY DART AEROSPACE LTD 9 DS A 303 ROUND BAR B REFORMAT DWG, ADD SPECS (ZN D8-1), 10.01.05 NEW ISSUE CHECKED
MFG. APPR.
APPROVED
DE APPR.
DATE DESIGN REV

SPECIFICATION CONTROL DRAWING

PURCHASE MATERIAL: AISI 303 SS ROUND BAR (NOT ACCEPTABLE)
SPECIFICATION:

ASTM A582

SPECIFICATION:

PART NUMBER:

1

WHERE "D.DDD" = DIAMETER IN INCHES EG. 0.75" ROUND BAR = M303R0.750 M303RID.DDDD DIA.

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MATERIAL:		2 1-000	PO / BATCH NO	039632/506
MATERIAL CERT REC'D: QUANTITY RECEIVED: QUANTITY INSPECTED: QUANTITY REJECTED:	Yeg 121 121		THICKNESS ORDERED THICKNESS RECEIVED: SHEET SIZE ORDERED: SHEET SIZE RECEIVED:	1.000 N/A
DESCRIPTION	NCR (Chec		COMMENTS	
SURFACE DAMAGE CORRECT FINISH	Y/N)			
CORROSION CORRECT GRAIN DIRECTION	Y	3		
DRRECT MATERIAL PER M-DRAWING CORRECT THICKNESS	Y N	Asm As	2	
PHOTO REQUIRED CORRECT REF # TO LINK CERT	Y N	Ha Vasa		
RRECT MATERIAL IDENTFICATION ORRECT M# ON THE MATERIAL	N (A	Trov[232]		
OOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	YE			
DOES THIS REQUIRE AN EXTRUSION REPORT				

	TOOKE INE	OLIS BELOV	M A HARDNE	SS CHECK.	
TYPE OF MATERIAL SIZE OF TEST SAMPLE HARDNESS / DUROMETER READING	HRC	HRB	DUR A	DUR D	WEBSTER

testers located in the Quality Office

QC 18 INSPECTION	
INSPECTED BY: 11	ENGINEERING SIGNOFF (if required)
DATE: 9-89 APR 2 8 2019	SIGNED OFF BY:
Attach this increase	DATE:

SPECIFICATION CONTROL DRAWING

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SPECIFICATION: PART NUMBER:

PURCHASE MATERIAL: AISI 303 SS ROUND BAR (NOTE: AISI 304/3/16 NOT ACCEPTABLE)
SPECIFICATION:

ASTM A582

M303RID.DDD DIA.

EG. 0.75" ROUND BAR = M303R0.750 WHERE "D.DDD" = DIAMETER IN INCHES

DRAWN
CHECKED
MFG. APPR.
APPROVED DESIGN REV. B REFORMAT DWG, ADD SPECS (ZN D8-1). NEW ISSUE DART AEROSPACE LTD
HAWKESBURY, ONTARIO, CANADA
DRAWING NO.
M303R DS 01.12.20 BY DATE ç 10.01.05 REV. B ➣

DE APPR. 10.01.05

303 ROUND BAR

SHEET 1 OF 1

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MATERIAL CERT REC'D:	<u> 125</u>				KNESS ORDE				
QUANTITY RECEIVED:	2			THIC	KNESS RECEI	VED: . 75	9		
QUANTITY INSPECTED:	21			SHE	ET SIZE ORDEI	RED:	1/1		
QUANTITY REJECTED:	0			SHE	ET SIZE RECEI	VED: N	IA		
							7		
	Ι								
DECODIDITION		CR		COMMENTS					
DESCRIPTION		(Check Y/N)		COMMENTO					
SURFACE DAMAGE	1	I(N)			···				
CORRECT FINISH	(Y)	N							
CORROSION	Y	(N)							
CORRECT GRAIN DIRECTION	(Y)	N							
CORRECT MATERIAL PER M-DRAWING	Y	N	Astu	1 13209					
CORRECT THICKNESS	Y	N							
PHOTO REQUIRED	Y	N							
CORRECT REF # TO LINK CERT	CK	N	Heat	# 12-95	96				
CORRECT MATERIAL IDENTFICATION		N	7.0						
CORRECT M# ON THE MATERIAL	(Y)	N							
DOES THIS MATERIAL REQUIRE		1 A							
ENGINEERING SIGN OFF	Y	N							
DOES THIS REQUIRE AN	.,	3							
EXTRUSION REPORT	<u>Y</u>	N							
CUT SAMPLE PIEC	E 0	T B A A	TEDIAL A	ND DDEEOD	M A HADDNE	SS CHECK			
COT SAMPLE PIEC				SULTS BELOV		OS CITEOIX.			
		T	HRC	HRB	T DUR A	DUR D	WEBSTER		
TYPE OF MATERIAL			11110	111,0			1		
SIZE OF TEST SAMPLE									
HARDNESS / DUROMETER READ	NIC								

SPECIFICATION CONTROL DRAWING

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PURCHASE MATERIAL: 6061-76/762/7651 ALUMINUM SHEET OR PLATE SPECIFICATION: 0

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QQ-A-250/11 OR AMS-QQ-A-250/11 OR AMS-4086 QR 4027 OR ASTM B209

PART NUMBER:

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100

M6061T6S XXX X W.WWW THK WIDTH

WHERE "XXX" = THICKNESS (IN INCHES) AND "W.WWW" = WIDTH (IN INCHES, OPTIONAL, FOR SPECIFYING CUT PLATE)

PREFERRED SIZE:

(

EG. 0.063" THICK SHEET = M6061T6S.063 EG. 3.5" WIDE BY 0.500" THICK PLATE = M6061T6S.500X3.500 XXX BY 4FT BY 8FT FOR SHEET

17,12,13 09.07.13 01.08.08 DART AEROSPACE LTD
HAWKESBURY, ONTARIO, CANADA
DRAWING NO.
F
M6061T6S
SHEE RF g G 텇 REFORMAT DWG, ADD 8209 SPEC (ZN D8-1), REF PAR 08-020A DESCRIPTION C ADD PLATE AND T651 SPEC S ₹ NEW ISSUE CHECKED REV. DESIGN DRAWN

MFG. APPR. APPROVED **DEVONED**

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REV. C SHEET 1 OF 1 SCALE

LIES M6061T6S SHEET HIS TITLE CP 47 6061-T6 SHEET/PLATE SPEC 8

COPYRIGHT © 2001 BY DART AEROSPACE LTD
THIS SCOOLMEN IS FIRST ARE CHECKED AS INSTITUTED IN THE STRINGS
WITH TO BILL LEGGE OF ARY PLEYOUR OR COMMANDATION OF ANY OTHER PRINCE

DATE 17.12.13

2018 MAR 13 0 En 18-655

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MATERIAL: M41				<u> </u>		PO / BATCI	H NO.: <u>03</u> 2	632/50663.
MATERIAL CERT REC'D:	129	5			THIC	KNESS ORDI	ERED: 1,2	90
QUANTITY RECEIVED:	18	5				KNESS RECE		20
QUANTITY INSPECTED:	: 8	1				T SIZE ORDE	7	1/1
QUANTITY REJECTED:	0	_		_				///
QOARTIT RESECTED.				-	SHEE	T SIZË RECE	IVED: 11/	19
DESCRIPTION	(Cr	CR neck				COMMEN	TS	
SURFACE DAMAGE		(N)	1					
CORRECT FINISH		N						
CORROSION	14	(N)						
CORRECT GRAIN DIRECTION	(4)	N						
CORRECT MATERIAL PER M-DRAWING	(Y)	N	Acto	1 1/2	9			
CORRECT THICKNESS	Y	N	12100	17900	-			
PHOTO REQUIRED	Y	(N)						
CORRECT REF # TO LINK CERT	(8)	N	Hart	# 17	265	7		
ORRECT MATERIAL IDENTFICATION	NO	N	11	1-1-1-1		<u> </u>		
CORRECT M# ON THE MATERIAL	(Y)	N						
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	_\	R						
DOES THIS REQUIRE AN	+ '	3						
EXTRUSION REPORT	Y	(N)						
	1						-	
CUT SAMPLE PIEC				ND PREF		A HARDNE	SS CHECK.	
			HRC	HRB		DUR A	DUR D	I WEBSTER
YPE OF MATERIAL						30.17.1	2010	TTEBOTEIT
SIZE OF TEST SAMPLE					_			

testers located in the Quality Office

QC 18 INSPECTION	ENGINEERING SIGNOFF (if required)
DAS INSPECTED BY:	SIGNED OFF BY:
DATE: 9-89 APR 2 8 2018	DATE:



DESIGN	DRAWN BY	DART AEROSPAC HAWKESBURY, ONTARIO, C	
CHECKE	APPROVED!	DRAWING NO.	REV. A
	# -#	M4140H-R	SHEET 1 OF 1
DATE		TITLE	SCALE
	05.02.21	4140 ROUND BAR	1:1
Α	05.02.21	NEW ISSUE	

PURCHASE MATERIAL: AIST 4140 H ROUND BAR

PER AIST 4140 OR AGTA A304-02/-A-434-BC/

-A193-03-GRADE-B7 (-A29-03)-A322-91 OR

UNS # - 641400

MINIMUM ULTIMATE TENSILE STRENGTH = 100 KSI MIMMUM YIELD TENKILE STRENGTH = 66 Ksi

WHERE D. DDD & DIAMETER IN INCHES M4140H-R D. DDD PART NUMBER: DIA

EG. 7/8" ROUND BAR = M4140 H-RO. 875



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MATERIAL: M60 DATE: A	61- PR 2	8 20	PO/BATCH NO.: <u>039632/5066</u> 3
MATERIAL CERT REC'D: QUANTITY RECEIVED: QUANTITY INSPECTED: QUANTITY REJECTED:	10	5	THICKNESS ORDERED: 1.000 THICKNESS RECEIVED: 1.000 SHEET SIZE ORDERED: 1/A SHEET SIZE RECEIVED: 1/A
DESCRIPTION	(Ch	CR eck (N)	COMMENTS
SURFACE DAMAGE	Y	(N)	
CORRECT FINISH	(Y)	N	
CORROSION	Y	(N)	
CORRECT GRAIN DIRECTION	(Y)	N	
ORRECT MATERIAL PER M-DRAWING	(8)	N	A57m B221
CORRECT THICKNESS	(Y)	N	
PHOTO REQUIRED	Y	(N)	
CORRECT REF # TO LINK CERT	8	N	Heat # 36585
DRRECT MATERIAL IDENTFICATION		N	
CORRECT M# ON THE MATERIAL	(Y)	N	
DOES THIS MATERIAL REQUIRE		1	
ENGINEERING SIGN OFF	Υ	N	
DOES THIS REQUIRE AN EXTRUSION REPORT	Υ	(N)	

CUT SAMPLE PIECE OF	MATERIAL A			SS CHECK.	
	HRC	HRB	DUR A	DUR D	WEBSTER
TYPE OF MATERIAL					
SIZE OF TEST SAMPLE					
HARDNESS / DUROMETER READING					

testers located in the Quality Office

QC 18 INSPECTION		ENGINEERING SIGNOFF (if required)
INSPECTED BY:	11	SIGNED OFF BY:
DATE:	9-89 APR 2 8 2018	DATE:

RELEASED

REV. B SHEET 1 OF 1 09.07.13 01.06.08 DATE TITLE
6061-T6 ROUND BAR
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HAWKESBURY, ONTARIO, CANADA
DRAWING NO.
M6061TGR 8 80 | REFORMAT DWG, ADD 8211& 8221 SPEC (ZN D6-1), REF PAR 04-020A. | A NEW ISSUE MFG. APPR.
APPROVED AND
DE APPR.
DATE 09.07.13 CHECKED DESIGN A REV.

NTS

PURCHASE MATERIAL: 6061-T6/T651/T6510/T6511/T62 ALUMINUM ROUND BAR SPECIFICATION:

0

QO-A-225/8 OR AMS-QO-A-225/8 (OR AMS 4117/4128/4115/4116) OR QG-A-200/8 OR AMS-<u>DO-A-8</u>00/8 (OR AMS 4160) OR ASTM B211 OK ASTM B22[‡]

WHERE "D.DDD" = DIAMETER IN INCHES M6061T6R D.DDD DIA.

EG. 5/8" ROUND BAR = M6061T6R0.625

U

PART NUMBER:

0

SPECIFICATION CONTROL DRAWING

MATERIAL: M10185 375	PO/BATCH NO.: 039632/5066318
DATE:APR 2 8 2018	
MATERIAL CERT REC'D: YES QUANTITY RECEIVED: 16 P12 QUANTITY INSPECTED: 16 P12	THICKNESS ORDERED: 375 THICKNESS RECEIVED: *390 SHEET SIZE ORDERED: 434
QUANTITY REJECTED:	SHEET SIZE RECEIVED: 4x4

DESCRIPTION	NO (Ch Y/		COMMENTS
SURFACE DAMAGE	Y	N	
CORRECT FINISH	(Y)	N	
CORROSION	Y	(N'	
CORRECT GRAIN DIRECTION	(1)	N	
CORRECT MATERIAL PER M-DRAWING	Y	N	CGA G40-21
CORRECT THICKNESS	(Y')	N	-V-10-01
PHOTO REQUIRED	Y	(N)	
CORRECT REF # TO LINK CERT	(0)	N	Heat It 716657
CORRECT MATERIAL IDENTFICATION	(1)	N	19-54-4-7-7-7-
CORRECT M# ON THE MATERIAL	(Y)	N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Υ	(1)	
DOES THIS REQUIRE AN EXTRUSION REPORT	Υ	(3)	

CUT SAMPLE PIECE OF	MATERIAL A			SS CHECK.	
TYPE OF MATERIAL SIZE OF TEST SAMPLE HARDNESS / DUROMETER READING	HRC	HRB	DUR A	DUR D	WEBSTER

testers located in the Quality Office

QC 18 INSPECTION	ENGINEERING SIGNOFF (if required)
INSPECTED BY: 11	SIGNED OFF BY:
DATE: 9-89APR Z 8 Z018	DATE:





DESIGN	DRAWN BY	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA				
CHECKE	APPROVED	DRAWING NO. M1010 - 5 S	REV. A			
DATE	1.06.13	1010-1025 SHEET	SCALE NTS			
A	01-06.13	NEW ISSUE				
AI	04.03.09	ADD ASTM A1008 AND GOLD	MOUED			

PURCHASE MATERIAL:

ATST 1010-1025 OR ASTM A36 /A366 / A1008 OR CSA G40-2), 38W /44W/SOW/GOW/70W

MINIMUM YIELD TENSILE STRENGTH = 28 KSI MINIMUM ULTIMATE TENSILE STRENGTH = 42 ksi

COLD ROLLED

3

PART NUMBER:

WHERE IT = GUAGE THICKNESS

EG. 16 GAUGE STEEL = M1010-S16GA

